THE UNIVERSITY OF SCRANTON

A JESUIT UNIVERSITY

2003-04 UNDERGRADUATE CATALOG

2003-04 Academic Calendar

	Fall 2003	Spring 2004
Dexter Hanley College New Student Orientation	Aug 22	Jan 23
Dexter Hanley College New Student Orientation	Aug 21	Jan 27
Housing Opens for New Students	Aug 23	
New Student Royal Welcome	Aug 23	
New Undergraduate Student Orientation	Aug 23-24	
Housing Opens for Returning Students at Noon	Aug 24	Jan 28
Royal Welcome/Continuing Students	Aug 24	
Graduate School Orientation	Aug 24	
Classes Begin (Note: Spring Semester Begins on a Thursday)	Aug 25	Jan 29
Holy Spirit Liturgy	Aug 28	
Last Day to Add Courses	Aug 29	Feb 4
Labor Day, No Classes	Sept 1	
Last Day 100% Tuition Refund (non–flat rate only)	Sept 3	Feb 9
Convocation	Sept 5	
Last Day to Request Credit/No Credit Option (Undergrad only)	Sept 5	Feb 12
Last Day 75% Tuition Refund (non–flat rate only)	Sept 10	Feb 16
Last Day 50% Tuition Refund (non–flat rate only)	Sept 17	Feb 23
Last Day 25% Tuition Refund (non–flat rate only)	Sept 24	Mar 1
Last Day to Drop a Course with No Grade	Sept 24	Mar 1
Semester Midpoint	Oct 10	Mar 22
Last Day to Elect Audit Grade Option (Undergraduate)	Oct 10	Mar 22
Incomplete Grades from Prior Terms Due	Oct 10	Mar 22
University Housing Closes at 6:00 p.m.	Oct 10	Mar 12
Fall/Spring Break Begins	Oct 11	Mar 13
University Housing Re-opens at Noon	Oct 14	Mar 21
Classes Resume after Break	Oct 15	Mar 22
Midsemester Grades Due	Oct 15	Mar 25
Graduate School Comprehensive Exams	Oct 18	Apr 3
Honors Convocation	Oct 26	
Last Day to Withdraw with "W" Grade	Nov 10	Apr 19
Last Day of Class before Thanksgiving/Easter	Nov 25	Apr 7
No Classes/University Housing Closes at Noon	Nov 26	Apr 8
Thanksgiving/Easter Holiday Begins	Nov 26	Apr 8
University Housing Re-opens at Noon	Nov 30	Apr 12
Classes Resume after Holiday	Dec 1	Apr 13
Last Week of Classes (Tuesday-Monday; no exams)	Dec 2-8	May 11-17
Last Day of Class (Monday)	Dec 8	May 17
Final Exams Begin (Tuesday; See Note Below)	Dec 9	May 18
Final Exams and Semester End (Saturday)	Dec 13	May 22
University Housing Closes at Noon	Dec 14	May 23
Final Grades Due (Fall Semester: Noon; Spring: 5:00 p.m.)	Dec 17	May 24
Baccalaureate Mass		May 29
Class Night		May 29
Commencement		May 30
University Housing Closes at Noon		May 31
Memorial Day		May 31

	Intersession 2004	Summer Sessions 2004 I	Grad	II
University Housing Opens at Noon	Jan 4	Jun 1	Jun 20	Jul 5
Classes Begin	Jan 5	Jun 2	Jun 21	Jul 6
Last Day to Add Courses	Jan 6	Jun 3	Jun 22	Jul 7
Last Day to Request Credit/No Credit Option	Jan 6	Jun 3		Jul 7
Last Day 100% Tuition Refund	Jan 7	Jun 4	Jun 23	Jul 8
Last Day to Drop Course/50% Tuition Refund	Jan 8	Jun 7	Jun 24	Jul 9
Last Day to Elect Audit Option (Undergrad)	Jan 16	Jun 15		Jul 19
Last Day to Register for Graduate Comps			Jun 25	
Independence Day Holiday, No Class			Jul 5	
Graduate Comprehensive Exams			Jul 17	
Last Day to Withdraw ("W" Grade)	Jan 19	Jun 23	Jul 21	Jul 27
Graduate Final Exams	Jan 26-27	Jun 30-Jul 1	Jul 28-29	Aug 3-4
Undergraduate Final Exams	Jan 26-27	Jun 30-Jul 1		Aug 3-4
Session Ends	Jan 27	Jul 1	Jul 29	Aug 4
University Housing Closes at Noon	Jul 2	Jul 30	Aug 5	
Final Grades Due by Noon	Feb 2	Jul 6	Aug 2	Aug 9

Day Admissions Office	(570) 941-7540
Adult and Part-Time Admissions Office	(570) 941-5813
Office of Financial Aid	(570) 941-7700
Office of the Registrar	(570) 941-7720
Graduate School Office	(570) 941-7600
University Fax	(570) 941-6369

Note: Final exams for fall-semester Monday classes with a start time of 4:30 p.m. or later will be held on Friday, 12 December 2003, at their regular meeting times. Final exams for spring-semester Monday classes with a start time of 4:30 p.m. or later will be held on Friday, 21 May 2004, at their regular meeting times.

THE UNIVERSITY OF

SCRANTON

A JESUIT UNIVERSITY

UNDERGRADUATE CATALOG 2003-04

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The President and officers of The University of Scranton reserve the right to change the information, regulations, requirements and procedures announced in this catalog; to change the requirements for admission, graduation or degrees; to change the arrangement, scheduling, credit, or content of courses; and to change the fees listed in this catalog.

The University reserves the right to refuse to admit or readmit any student at any time should it be deemed necessary in the interest of the student or of the University to do so and to require the withdrawal of any student at any time who fails to give satisfactory evidence of academic ability, earnestness of purpose, or active cooperation in all requirements for acceptable scholarship.

Notice of Nondiscriminatory Policy as to Students

The University of Scranton admits students without regard to their race, color, religion, national origin, ancestry, sex or age to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. The University does not discriminate on the basis of race, color, religion, national origin, ancestry, disability, sex or age in administration of its educational policies, admission policies, scholarship and loan programs, and athletic and other school-administered programs.

Otherwise qualified persons are not subject to discrimination on the basis of handicap or disability.

If you believe you have been discriminated against because of race, color, religion, national origin, ancestry, sex, age, or handicap or disability, please contact the Director of Equity and Diversity.

It is the personal responsibility of each student to acquire an active knowledge of all pertinent regulations set forth in the *Undergraduate Catalog.*

Within the various schools and colleges the only official interpretations or modifications of academic regulations are those which are made in writing by the dean of the school or college of which the student is a member, or such interpretations or modifications of academic regulations as are approved by the appropriate dean in writing.

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A Community of Scholars
•
Jesuit Excellence
•
Real World Ready

The University of Scranton is a community of scholars whose ministry of education is informed by the vision of life contained in both the Gospel, and the *Spiritual Exercises* of Saint Ignatius Loyola. The University is therefore dedicated to freedom of inquiry, the pursuit of wisdom, integrity and truth, and the personal growth and development of all who share in its life and ministry.

The Mission Statement of The University of Scranton

Historical Prologue

A comprehensive, co-educational institution, The University of Scranton is, by tradition, choice and heartfelt commitment, a Catholic and Jesuit university. Founded in 1888 as Saint Thomas College by the Most Reverend William G. O'Hara, D.D., the first bishop of Scranton, it achieved university status in 1938, and was entrusted to the care of the Society of Jesus (the Jesuits) in 1942.

The Mission of the University

The University of Scranton is a community of scholars whose ministry of education is informed by the vision of life contained in both the Gospel, and the *Spiritual Exercises* of Saint Ignatius Loyola. The University is therefore dedicated to freedom of inquiry, the pursuit of wisdom, integrity and truth, and the personal growth and development of all who share in its life and ministry.

The Character of the University

As a Catholic university, The University of Scranton sees in the teaching and example of Jesus Christ the primary source for the values and attitudes that imbue the culture of its campus. Thus, it seeks to communicate the fullness of the Catholic intellectual tradition to its students in a systematic way. Moreover, in the ecumenical spirit that it has manifested since its founding, the University invites faculty, staff and students from other religious traditions to share in its mission.

As a Jesuit university, The University of Scranton provides its students with a nurturing environment in which a value-laden curriculum challenges them to develop:

- a commitment to the value system contained in the Gospels,
- a principled respect for the dignity of the human person,
- a devotion to justice,
- a dedication to the service of the poor,
- a love of truth and a restless passion for learning.

Convinced that the search for truth necessarily involves the search for God, the University also provides its students with opportunities for worship and spiritual development, and for the academic study of theology, religion and religious experience.

As a university dedicated to education in the liberal arts, The University of Scranton requires that all of its students complete a rigorous curriculum designed to foster the development of their analytical and critical abilities. Thus, the core curriculum of the University seeks to impart to students a knowledge of scientific principles, methods and skills, an appreciation of literary and artistic expression, an awareness of historical perspectives, and an understanding of religious, philosophical and moral values.

As an urban American university, The University of Scranton is dedicated to educating "men and women for others," from a wide variety of backgrounds, whose lives and talents will enrich the life of the human family. The University is committed to enrolling a culturally and racially diverse student body from all areas of the country and the world. In fulfillment of its mission, the University further seeks to attract faculty members from richly diverse backgrounds who share its commitments to excellence in teaching and research, to *cura personalis* (a loving concern for students), and to the incarnational vision of human life that informs its ministry.

As a comprehensive university, The University of Scranton offers certificate and degree programs on both the undergraduate (associate and baccalaureate) and graduate (master's) levels to traditional and non-traditional students. Moreover, in order to prepare them for careers in a variety of fields, the University offers its students a wide range of professional and pre-professional programs of study.

As the oldest and largest university in Northeastern Pennsylvania, The University of Scranton is firmly committed to serving the people of the region. This commitment is manifested in a special way through the University's dedication to the education of future leaders for the area's professional, political, religious, cultural and business communities.

Throughout its history, the University has been distinguished by its commitments to liberal arts education, excellence in teaching and the quality of care that it lavishes on its students. As it moves into the new millennium, the University reaffirms its commitment to these qualities and invites venturesome scholars and students to join in its mission in the service of wisdom, integrity and truth.

History of the University

The University of Scranton was founded as Saint Thomas College by Bishop William G. O'Hara, the first Bishop of Scranton, who had always hoped to provide an opportunity for higher education in the Lackawanna Valley. In August of 1888, with few resources at hand, he blessed a single block of granite as a cornerstone for his new college, which would admit its first students four years later. (The cornerstone of Old Main is preserved in the wall of St. Thomas Hall located at the corner of Linden Street and Monroe Avenue.)

The college was staffed by diocesan priests and seminarians until 1896 and then, for one year, by the Xaverian Brothers. From 1897 until 1942 the school, which was renamed The University of Scranton in 1938, was administered for the Diocese by the Christian Brothers. In the late summer of 1942, at the invitation of Bishop William Hafey, 18 Jesuits, led by Rev. Coleman Nevils, S.J., the newly appointed president, arrived on campus to administer the University.

The Jesuits restructured and strengthened Scranton's traditional and pre-professional programs with an emphasis on the liberal arts, which are the foundation for every program at a Jesuit university. This emphasis is intended to give students an appreciation for all disciplines as they develop specific subject knowledge.

The University has flourished under the Jesuits, growing from a primarily commuter school with fewer than 1,000 students to a broadly regional, comprehensive university with a total enrollment of over 4,700 students in undergraduate, graduate, and non-traditional programs.

As it enters the 21st century, the University is building on its historical and educational heritage, guided by a *2000-2005 Strategic Plan entitled A Community of Scholars – A Culture of Excellence* and a 20-year Facilities Master Plan also adopted in 2000.

The University remains committed to enriching the quality and variety of its academic offerings with recent additions in such fields as Electronic Commerce, Human Resources and Enterprise Management Technology. In addition, it continues to invest in its physical plant constructing 25 new buildings and renovating 24 others since 1984. New construction since 1998 has included McGurrin Hall, a four-story home for the Panuska College of Professional Studies; Mulberry Plaza and Madison Square townhouses; and Brennan Hall, a 71,000 sq. ft. building that provides technologically advanced classroom and office space for the Kania School of Management. (The fifth floor of Brennan Hall is home to the Executive Center, an educational resource for Northeastern Pennsylvania.)

The University Seal

The principal colors of the shield are the traditional colors of the University, white and royal purple. On the purple field there is a horizontal silver bar, containing, in purple, a star taken from the seal of the Brothers of the Christian Schools and from the seal of Saint Thomas College, predecessor of the University, and two stacks of wheat from the obverse of the coat of arms of the Commonwealth of Pennsylvania.

The upper half of the shield contains, in gold, two wolves grasping a cauldron suspended from a chain; they are taken from the coat of arms of the family of Saint Ignatius Loyola, and they identify the University as a Jesuit institution. Below the silver bar is a golden rising sun, symbolic of Saint Thomas Aquinas, the shining light of the Church and the Patron of the University.

Indicating the Diocese of Scranton and William Penn, founder of the Commonwealth, the black border of the shield reproduces the border of the shield of the Diocese and the silver hemispheres are taken from William Penn's coat of arms.

The crest is a golden cross of the particular style known as Patonce. It symbolizes Christ, the goal and the norm of the University's educational efforts, and it complements the motto, which the University has had since it was entrusted to the care of the Christian Brothers in 1899: Religio, Mores, Cultura.

The outer ring surrounding the seal includes the name and founding date of the University and reference to the Commonwealth of Pennsylvania.

A Community of Scholars

The Faculty

Over 250 faculty and administrators participate in the University's educational enterprise. They hold degrees from 135 different universities in 30 countries on five continents. Cambridge and the University of London in England; Louvain and the Gregorian in Europe; the University of Calcutta in India; Sophia University in Japan; Soochow University in China; Berkeley, Yale, MIT, Notre Dame, Harvard and Georgetown in America – all are represented among the faculty.

By its nature and function, a university faculty constitutes the most cosmopolitan element in a community. Hindu and Muslim, Christian and Jew, ministers and rabbis – scholars and teachers all – are found on the University's faculty.

The Jesuit tradition is carried on at the University not only by the 16 Jesuits engaged in teaching or administration, but by the fact that almost half of the faculty hold at least one degree from a Jesuit college or university.

As indicated in the Mission Statement, excellent teaching and scholarship are regarded as complementary at this institution. In 2002 there were over 450 publications, proceedings and publications, including prestigious peer reviewed journals and numerous books on subjects ranging from regions of Italy to parenting to business and spirituality.

Faculty interests are extensive and include research and projects funded by the National Institutes of Health (NIH), National Science Foundation (NSF), Department of Energy (DOE), Department of Defense (DOD), Health Resources and Services Administration (HRSA), National Endowment for the Humanities (NEH), Pennsylvania Department of Education (PDE), Pennsylvania Commission on Crime and Delinquency (PCCD), Pennsylvania Humanities Council (PHC), Pennsylvania Council on the Arts (PCA), as well as numerous private foundations and corporations.

Many faculty participate in international projects and faculty exchange programs with universities and hospitals around the world, bringing this global perspective into the classroom. Among the countries involved are Slovakia, Republic of Georgia, Mexico, China, Kyrgyzstan, and Mozambique; funding has been received from the USAID and the Department of State, and includes five faculty Fulbright Scholars.

The University Directory near the end of the catalog presents more detailed information about the faculty.

Student Diversity and Participation

As our faculty come from around the world, so do our students. Twenty-seven states and twenty-two foreign countries are represented in the University's student body of over 4,700. In turn, through the Fulbright and Study Abroad programs, University of Scranton students matriculate at such foreign universities as Oxford, Leuven, Madrid, Tubingen, Mainz, Oslo, Fribourg, Cologne, Salamanca, Lancaster, Berne, Strasbourg, the Sorbonne and University College, Dublin. This interchange of students contributes to the diversity and intellectual life of the University.

Much of the work in this university community is accomplished through student input. Considerable scientific research at the University is done by undergraduate students in the laboratories and in the field. With faculty assistance, the University newspaper and yearbook are edited and managed by students, and students publish articles and abstracts in national scholarly journals. Students work in the Public Relations and Admissions offices, computer center, as resident assistants in the dormitories, as research assistants and interns for deans and the registrar. Similarly, they participate in the University's decision making. Seven students are elected by the student body to serve on the University Council. Others serve with departmental chairpersons and faculty on the Conferences which recom-

mend to the Deans changes in academic programs. Students also serve with other members of the University community on the various search committees which recommend candidates for the principal administrative posts from President to Dean.

Baccalaureate Source of Ph.D.s

Achievement is also recognized in a recent study of the Office of Institutional Research at Franklin and Marshall College which showed that over a 75-year period (1920-95), The University of Scranton ranked 22nd out of 254 four-year, private, master's-degree-granting institutions as the baccalaureate source of Ph.D.s in all fields.

Jesuit Excellence

Since 1994, *U.S. News & World Report* has named the University among the top 10 comprehensive universities in the North (the most competitive by its annual survey of "America's Best Colleges"). The University has consistently been included in the *U.S. News* rankings since they were first introduced in 1983. In the 2003 edition, Scranton ranked fourth. The University was also ranked 11th in the category, "Great School at a Great Price."

The Princeton Review counts Scranton among *The Best 345 Colleges* in the nation according to its 2003 edition. The University is also profiled in the 2003 edition of Kaplan Publishing's *The Unofficial, Unbiased, Insider's Guide to the 320 Most Interesting Colleges*.

For three consecutive years, *Yahoo! Internet Life* magazine ranked the University among the nation's 100 most wired colleges and universities. In 2001, Scranton ranked 39th among the more than 1,300 universities surveyed and was one of only two Jesuit universities making the list.

In recognition of its work as a values-centered institution, the University is one of 100 American schools named to the John Templeton Foundation's *Honor Roll of Colleges That Encourage Character Development.* The foundation made special note of the integration of academics and student life as expressed in the University's curriculum and co-curricular activities, mentioning especially the Freshman Seminar, Collegiate Volunteers, Campus Ministries and the peer counseling and education programs in the Wellness Center.

Real World Ready

Fulbrights and Other International Fellowships

Since 1972, 111 Scranton students have accepted grants in the competitions administered by the Institute of International Education (Fulbright) and International Rotary. In 2001 the University celebrated its 100th winner in the competition for prestigious Fulbright Fellowships – the U.S. government's premier scholarship for foreign study and research.

Three Scranton students were awarded Fulbright Scholarships for the 2002-03 academic year, and one was awarded an Austrian Government Teaching Assistantship. Jennifer Bradley, who completed her M.B.A. this year, and Nicole Sublette, who majored in psychology and minored in art history, won Fulbright Teaching Assistantships to South Korea, where they will teach English as a second language while researching aspects of Korean art. Elliott Gougeon, who majored in German, will spend the year in Germany on a Fulbright/Padagogischer Austauschdienst Teaching Assistantship in English. He will explore the German reaction to increased school violence during his Fulbright year. Finally, Kate Christiansen, who majored in international studies and minored in German, was awarded an Austrian Government Teaching Assistantship in English to Austria.

During the 2002-03 academic year three Scranton graduates studied overseas on Fulbrights. Joy Oliver, a psychology and philosophy double major, spent her year researching Dutch work and organizational experts at Utrecht University in the Netherlands. Kristy Petty, an international business and Spanish double major, examined the strategies of leading firms in Argentina's automobile and foodstuffs industries during her Fulbright Fellowship in Buenos Aires. Nicole Negowetti, a political science major, pursued a master's degree in Peace and Conflict Resolution at the University of Limerick in Ireland on her Rotary Scholarship. Maria Atzert '01 spent the year teaching English as a second language in Seoul during her second year as a Fulbright Teaching Assistant in South Korea.

Dr. Susan Trussler of the Economics/Finance department is the University's Fulbright Pro-

gram Advisor. Additional information is available online at www.scranton.edu/fulbright.

Awards from Institute of International Education Fulbright Program and International Rotary, 1983-2003

1983
Erin Brennan ..... Germany
Patrick Davies (ITT) ..... Chile
Peter Regeski ..... France
Joseph Tuncavage ..... Switzerland
Christopher Wahren ..... Germany

1984
Robert Conforti ..... Switzerland
Kathleen Flanagan ..... France
Colette Mazzucelli ..... Switzerland

1985
John Beltrami ..... Switzerland
Michele Gieger ..... Germany
Marguerite Pedley ..... New Zealand
Louise Vogel ..... Germany

1986
Margaret Husosky ..... New Zealand
James Lavelle ..... Thailand
Christopher Montone ..... Honduras
Robert Rabecs ..... Philippines
Janet Schubert (Rotary) ..... Belgium
DeLoris Spegar ..... Singapore
Roy Whitman ..... Switzerland
Ann Marie Laskiewicz Ross ..... South Africa

1987
Susan Conway ..... Germany
Kathleen Gallagher (Rotary) ..... Nepal
Margaret Keen ..... France
Kevin Wright ..... Finland

1988
Michel Aboutanos ..... Switzerland
Jeffrey Gabello ..... Germany
Christine O'Brien ..... Kenya
Mary Yuen ..... Singapore

1989
Kim Marie Newak ..... Germany

1990
Caroline Parente ..... Uruguay

1991
Daniel Jurgelewicz ..... Finland
Thomas Spoto ..... Singapore

1992
Maureen Cronin ..... South Korea
Alissa Giancarlo ..... Germany
Thomas Kish ..... Hungary
Jennifer Murphy ..... Denmark
Neal Rightley ..... Germany
Salvatore Tirrito ..... Finland
Denise Udvarhely ..... New Zealand

1993
Timothy Gallagher ..... New Zealand
Susan Kavalow ..... South Korea
Jennifer Kelly ..... Uruguay
Alan Landis ..... Colombia
Beth LiVolsi ..... Italy
Colleen McInerney ..... Australia
Jennifer Seva ..... Argentina

1994
Margaret Mary Hricko ..... Spain
Terrence Kossegi ..... Pakistan
Karis Lawlor ..... Germany
Brian Zarzecki ..... Namibia

1995
Jason Cascarino ..... New Zealand
Jeffrey Greer ..... Sri Lanka
Renee Kupetz ..... Germany

1996
Robert Brennan ..... Israel
Michael Pagliarini ..... France
Michael Tracy ..... New Zealand

1998
Kevin Bisignani ..... Germany
Jennifer Cahill ..... Japan
Matthew Pierlott ..... South Korea
Karen Towers ..... Mauritius

1999
Alison Glucksnis ..... Japan
Katherine Roth ..... United Kingdom
Christopher Warren ..... Guatemala

2000
Lisa Angelella ..... India
Amy Patuto ..... South Korea

2001
Maria Atzert ..... South Korea
Lisa Biagiotti ..... Italy
Erin Friel ..... Germany
Carol Gleeson ..... Paraguay
Nicole Heron ..... Finland
Clifford McMurray ..... Germany
Sean St. Ledger (Rotary) ..... Italy

2002
Joy Oliver ..... Netherlands
Kristy Petty ..... Argentina
Nicole Negowetti (Rotary) ..... Ireland

2003
Jennifer Bradley ..... South Korea
Elliott Gougeon ..... Germany
Nicole Sublette ..... South Korea

Truman and Other National Scholarships

University of Scranton students excel in several national fellowship competitions, compiling a superb record of achievement in many areas in addition to their exceptional record in the Fulbright competition.

During the 2002-2003 academic year, Sara Shoener, a biomathematics and philosophy major, became the fifth University of Scranton student to be named a Truman Scholar, one of only 76 students in the country to be so honored in 2003. She plans to use her Truman Scholarship to pursue a joint J.D./M.P.H. program at Johns Hopkins University School of Public Health and Georgetown University Law Center. Michael Venn, a political science and international studies major, was one of only 43 students in the country to be awarded a Jack Kent Cooke Graduate Scholarship. Michael's scholarship will provide full support for six years as he pursues his Ph.D. in European Studies at the University of Cambridge, where he will also earn a barrister's degree. Christopher Corey, a biochemistry, biomathematics, and biophysics major, received a Goldwater Scholarship, one of 300 students to be awarded this scholarship. Talia Argondezzi, an English and philosophy major, was one of three students in the country to receive a senior scholarship from Sigma Tau Delta, the International English Honor Society; Talia also received a Sigma Tau Delta essay award.

During the 2001-02 year, Stephanie Tessing was one of 77 students to be named a Truman Scholar. Stephanie was also named to the third team of the *USA Today* All-USA Academic Team in 2003. Michael Venn, named above, received one of forty Jack Kent Cooke Undergraduate Scholar awards given to continuing undergraduate students; he also held an internship with the Department of State's Bureau of European Affairs. Erin Brodie, a mathematics and philosophy major, was named a Junior fellow in the Joint Program in Survey Methodology. Ryan Surace, an Accounting major, was one of 50 students to receive the State Farm Companies Exceptional Student Fellowship. Rachel Henry, a junior English major, was one of three students to receive a Sigma Tau Delta Junior Award, while Heather Theiss, a senior English and philosophy majors received one of three senior awards given by Sigma Tau Delta.

In the 2000-01 year, two senior athletes, Joseph Fent and Nicole Bayman, received NCAA Postgraduate Scholarships. Sarah Gazdalski, an accounting major, received the State Farm Companies Exceptional Student Fellowship. Les Carter, a mathematics and philosophy major, was selected as a Junior Fellow in the Joint Program in Survey Methodology.

In each of the past three years, University of Scranton students have received scholarships, including the IIE Freeman Asia Award and the Gilman Scholarship, to support their study at international institutions.

Alumni Society

The University of Scranton Alumni Society provides a way for graduates to continue their participation in the life of the University after their student years. Its 20 alumni chapters and affiliates include more than 35,000 members. The Society, which is governed by elected officers and a 28-member Board of Governors, fosters communication among alumni and encourages continued dialogue between alumni and the University community. It hosts alumni functions, including reunions and homecomings, and promotes the interests of the University by identifying prospective students, assisting the placement of graduates, collecting and preserving materials for University history, encouraging networking among its membership, providing numerous services and benefits, performing community service projects, and honoring student, faculty and alumni accomplishments. These activities are coordinated through the Office of Alumni Relations on campus.

Pre-Med and Pre-Law Programs

In 2003, medical and related health professions schools accepted over 80% of the University's 54 applicants. Over the past five years, the acceptance rate of University of Scranton applicants to medical, dental, and other health professions schools has ranged between 80-100%. The acceptance rate for the 35 Scranton students applying for law schools in 2002 was 75% – about 15% above the national average. Additional information

about the remarkable success of Scranton alumni gaining acceptance to professional schools, including the nation's most prestigious, is documented in the Health Professions and Pre-Law sections later in this catalog.

Volunteer Activity

The University's Collegiate Volunteers program has a roster of 2,200 students who perform well over 154,000 service hours each year. Since 1986, a total of 263 Scranton students have chosen to spend a year or more in full-time volunteer service immediately after graduation. A total of 190 of these graduates have volunteered with the Jesuit Volunteer Corps. Additional information about the Collegiate Volunteers program can be found in the Student Life section of the catalog.

The University at a Glance

Students

The student population, including adult, part-time and graduate students, is over 4,700. About 80 percent of full-time freshmen live on campus.

Schools and Colleges (Year Established)	Enrollment Fall 2002
College of Arts and Sciences (1888)	1,814
Dexter Hanley College (1923)	449
Graduate School (1951)	668
Arthur J. Kania School of Management (1978)	758
J.A. Panuska, S.J., College of Professional Studies (1987)	1,039
Total	**4,728**

Undergraduate Students	**4,060**
Men	1,722 (42%)
Women	2,338 (58%)
Graduate Students	**668**
Men	222 (33%)
Women	446 (67%)

Primary States of Origin (Undergraduates)	
Pennsylvania	47%
New Jersey	24%
New York	22%
Other	7%

Primary Counties of Origin (Pennsylvania Undergraduate Students)	
Lackawanna	38%
Luzerne	11%
Montgomery	9%
Delaware	7%
Bucks	5%
Philadelphia	5%

Degrees Conferred, 2001-02	
Bachelor's Degrees	829
Master's Degrees	201
Master's Certificates	1
Associate's Degrees	5
Total	**1,036**

Academic Programs

Bachelor's Degree Programs	58
Master's Degree Programs	23
Undergraduate Concentrations/Tracks	29
Continuing and Professional Education Courses Offered Annually	325

Faculty

Eighty-five percent of the University's faculty hold doctoral or other terminal degrees in their fields. The student-to-faculty ratio of 13:1 allows for class sizes that average 23 students.

Full-Time Faculty	**252**
Men	172 (68%)
Women	80 (32%)
Minorities	22 (9%)
Jesuits	8 (3%)
Tenured Faculty	**196 (78%)**
Men	140
Women	56

Undergraduate Admission and Expenses

The University of Scranton is a selective institution, offering a flexible, liberal arts education in the Jesuit tradition of *cura personalis* (care for each person and the whole person).

Admission

The Admissions Committee of The University of Scranton will make the final decision on applications for admission. In reaching this decision, the committee will consider a number of factors: demonstrated evidence of a student's academic ability, intellectual curiosity, strength of character and motivation; the student's high school record, class rank, and extracurricular activities; SAT and/or ACT scores.

University Information

The Office of Admissions offers prospective students a wide variety of information about The University of Scranton through various publications. **Prospective students can request materials by contacting:**

Director of Admissions
The University of Scranton
Scranton, PA 18510
Telephone: (570) 941-7540 or 1-888-SCRANTON
Fax: (570) 941-5928
E-mail: admissions@scranton.edu
Web: www.scranton.edu/admissions

Required High School Preparation

Students wishing to enroll in any of several undergraduate programs offered by the University must have completed a total of 16 or more high school academic units covering grades 9-12. The term "unit" refers to a high school course taught four or five hours weekly throughout an academic year of 36 weeks duration. Unit requirements and preferred distribution of secondary courses are given in the table below.

Applicants without high school credit in modern languages may be accepted if they present 16 acceptable units. A single year of language in high school will not be counted as a unit to satisfy the requirements for admission.

Mathematics includes elementary, intermediate, and advanced algebra; plane and solid geometry; trigonometry, analysis, and any other college-preparatory course. Applicants for science and engineering programs must include trigonometry and must have earned a grade of 85 in each mathematics course. Applicants for the nursing programs should include chemistry and biology in their high school programs.

Science includes biology, chemistry, physics and other college-preparatory courses. Pre-engineering applicants are urged to include physics in their high school preparation.

Campus Visit Programs

The best way to experience The University of Scranton is to visit for yourself. Individuals can schedule a visit that includes a campus tour, a group information session, sitting in on a class or a personal session with an Admissions Counselor. Additional opportunities include two fall Open Houses, a Royal Nights overnight program and Freshman Preview Day in the spring for accepted high school seniors. Tours and individual appointments are available throughout the year, Monday through Friday and some Saturdays. To arrange a visit, please call 1-888-SCRANTON (choose option "1"), (570) 941-6654 or e-mail us at admissions@scranton.edu.

	College Program Choice					
High School Unit	Arts		Business, Science, OT, PT, Engineering		Education, Social Science	
	Req.	*Pref.*	*Req.*	*Pref.*	*Req.*	*Pref.*
English	4	4	4	4	4	4
History and Social Science	2	3	2	3	2	3
Foreign Language	2	2+	2	2+	2	2+
College-Preparatory Mathematics	3	4	4	4	3	4
Science	1	2+	3	3+	1	2+
Other acceptable units	4		1		4	
Total	**16+**		**16+**		**16+**	

Submitting an Application

Students should apply during the first semester of their senior year of high school. The early-action deadline is November 15. For all applicants other than those in Physical Therapy, early-action offers will be made on December 15. From that time on, all applications will be reviewed on a rolling basis with a four-week turn around and a preferred final application deadline of March 1st. All Physical Therapy applications must be completed and received by February 15 for a March 15 decision and a May 1 priority confirmation.

The application form should be completed and the entire form given to the guidance counselor of the high school who will forward high school grades to the University.

The SAT I: Reasoning Test (College Entrance Examination Board) or the ACT Test (American College Testing) is required of all applicants. These tests should be taken during the junior year and/or senior year of high school. During Summer Orientation, the University administers its own placement tests. Therefore, applicants are not required to take the SAT II.

Physical Therapy applicants must submit documentation attesting to observation work done in their chosen field.

Application Fees and Confirmation

A non-refundable fee of $40.00 should accompany the application. No fee is charged for online applications submitted via the University Web site at www.scranton.edu/apply. Accepted students who wish to confirm their place in the freshman class should submit a non-refundable class reservation fee of $150.00 by May 1. Resident freshmen should also include a non-refundable room deposit fee of $150.00.

Advanced Placement

Applicants who have taken college-level courses in high school may be placed in advanced courses and may be given credits as well. Students who have been accepted for admission and desire to apply for such placement must take the Advanced Placement Examination offered in May by the College Entrance Examination Board, Princeton, N.J. 08540. Students can have their results sent automatically to the University by providing the school code (2929). In most cases, a minimum score of "3" (non science) or "4" (math/science) may earn advanced placement with 3 to 6 credits. Biology, Biophysics, and Physical Therapy majors cannot receive biology credits. Students pursuing a pre-med program should be aware that many medical schools do not accept AP credit for required pre-medical courses.

College-Level Examination Program (CLEP)

Through the CLEP tests, taken before admission, applicants may gain college credit in most academic subjects for work done outside the classroom in jobs, military service, etc., or in non-accredited institutions. For further information contact: College Level Examination Program, Box 1824, Princeton, N.J. 08540. Students wishing to be considered for CLEP credits should take the CLEP examinations and have the results forwarded to the Director of Admissions.

International Students

The University of Scranton has been educating international students since 1946 and remains committed to that tradition. At present, approximately 50 different countries are represented by undergraduate and graduate students.

The University's Office of International Programs and Services and the International Center provide international students with advice, support and resources to ensure a smooth transition to a new culture and educational system. Additional information about support programs and services for international students can be found later in this catalog in the section on the Office of International Programs and Services.

The University has a house on campus that serves as a mosque for the use of Muslim students. It is available for daily prayers as well as the Friday prayer.

International Baccalaureate Policy

The University of Scranton grants college credit for classes taken through a recognized International Baccalaureate (IB) program.

Students can earn credit for up to three successfully completed higher-level classes in which a score of 4 or higher is achieved on the appropriate IB examination. For more information on IB credit, contact the Admissions Office.

Students with Disabilities

The University of Scranton complies with all applicable laws and regulations with respect to the accommodation of handicaps and disabilities as these terms are defined in law. The University will provide reasonable accommodations so students can fully participate in curricular and extracurricular activities. Students who need assistance should make timely contact with the Office of Equity and Diversity at (570) 941-6213.

Special Admissions Programs

Academic Development Program

When the Admissions Committee believes applicants may find the transition to college-level work especially challenging, the applicants may be considered for a special freshman-year Academic Development Program (ADP). The program concentrates on English, logical thinking, reading skills and study habits, as well as work in the student's major field. Freshmen who complete all requirements of the ADP program have normal sophomore standing.

Summer Bridge Program

The University is committed to helping students who have demonstrated achievement and a desire to attend college but who need to improve their verbal skills. The Summer Bridge program assists students in making the transition from high school to college and in the future development of reading and writing skills. The summer program and mentoring during the academic year are designed to help students achieve their potential and succeed in their degree program. Students are chosen on the basis of a careful examination of high school transcripts, standardized test scores, and extracurricular activities.

Transfer Student Admission

Students who wish to transfer to The University of Scranton must submit applications and the usual credentials: official high school records, SAT scores and transcript(s) from the college(s) attended. (All official transcripts must be submitted regardless of whether or not credit was earned.) At the discretion of the Admissions Committee, students from other accredited colleges may be admitted provided:

1. The courses to be transferred are equivalent or comparable to courses offered at The University of Scranton;
2. Students are required to follow all requirements prescribed for the degree program at The University of Scranton;
3. No credit will be given for courses with grades less than C.

Transfer credit is reviewed on an individual basis. Students transferring are required to earn a minimum of 30 credits for an associate's degree or 63 credits for a baccalaureate degree at The University of Scranton. Special orientation sessions are held for transfer students. It should be noted that some departments require that at least half of the credits in the student's major be taken here at the University.

Validation of Business Transfer Courses

Students may validate courses taken at a non-AACSB institution by successfully completing one or more advanced courses in the subject for which the course in transfer is a foundation course. Approval is granted by the Dean of The Kania School of Management. This applies only to lower-division transfer courses which the University offers at the upper-division level.

High School Scholars

High school students who have completed their sophomore or junior year with a minimum of a B+ grade average may take one University course each term until they graduate from high school. Courses may be taken for credit or for audit at a special tuition rate of $100 per credit. Students may enroll for a maximum of three credits per session. Individual exceptions may be made if GPA/SAT

scores substantiate the request. Courses available are typical freshman-level courses that are accepted toward a degree The University of Scranton. These courses generally transfer to other regionally accredited colleges and universities. The University of Scranton cannot, however, guarantee transferability. Registrations will be processed on a space-available basis. Students will be responsible for tuition and applicable fees. Further information is available from the Office of Admissions, at (570) 941-7540, or fax: (570) 941-5928.

Tuition and Fees 2003-04

The University of Scranton charges all full-time undergraduate students a comprehensive or flat tuition charge for the fall and spring semesters. Not included in the charge are expenses for books and supplies, telephone charges, special service fees and laboratory fees. Room and board charges are assessed based on the housing option and meal plan selected.

Tuition

Full-time Student Tuition, per year $21,208

Includes 12 to 18 credits taken in each of the fall or spring semesters only. Credits taken during intersession or summer sessions or those taken above 18 credits in one semester are charged at the rate of $590 per credit in the fall, intersession and spring and $494 in the summer. This tuition rate excludes students enrolled in the Physical Therapy Program.

Physical Therapy Student Tuition, per year $23,622

Includes 12 to 18 credits per semester and all required summer and intersession courses. Additional credits are charged at the per credit rate of $590 in the fall, intersession and spring and $494 in the summer.

Tuition for Special Programs: Special Jesuit Liberal Arts program students will be allowed to take up to 21 credits per semester (fall and spring) at no additional charge above the flat-tuition rate. During their junior and senior years, students in the Honors Program and Business Leadership Program will be allowed to take up to 21 credits per semester at no additional charge above the flat-tuition rate.

Room Charges

Room charges are assessed per semester. Room fees cover intersession housing but an additional fee is assessed for any meal plan. No fees include vacation periods.

Plan AA, per year ..... $6,186 (single), $5,620 (double)

Madison Square, Mulberry Plaza

Plan A, per year $5,620

Gavigan, Linden Plaza, Redington

Plan B, per year $5,312

Blair, Cambria, Casey, Driscoll, Fayette, Gannon, Gonzaga, Hopkins, Kostka, Lavis, Leahy , Liva, Luzerne, Lynett, Martin, McCormick, McGowan, McKenna, Nevils, Southwell, Tioga, Wayne

Plan C, per year $5,010

Dennis Edward, Fitch, Hafey, Hannan, Jerrett, McCourt, Montgomery

Other Room Charges

Room Damage Deposit $200

University Housing Activity Fee (annual fee, all returning students) $40

Summer Session Housing

Summer room charges (1st and 2nd sessions) $452

"G" session $621

Summer Bridge Program $789

Residency Requirement

The University requires all first- and second-year undergraduate students to live in campus housing. Exceptions to this policy are limited to students who reside with a parent, legal guardian or spouse; are 21 years of age or older; or present other documented extenuating circumstances. The Admissions Office will determine a student's residency status upon admission to the University.

Board

Board charges are assessed per semester. No fees include vacation periods.

19 meals per week, per year.....$3,808
$513 in Intersession. All freshmen living in University housing must participate in the 19-meal plan during the entire freshman year. Additional information about meal plans can be found in the Student Life section of the catalog or by contacting Dining Services at (570) 941-7456.

14 meals per week, per year.....$3,504
$474 in Intersession

10 meals per week, per year.....$2,988
$411 in Intersession

Ordinary Fees

University Fee, per year.....$200
Continuation Fee (in lieu of University Fee for students not in residence) per semester.....$5
Medical Leave Fee, per semester.....$15
Reader (Individual Study) Fee, per credit, in addition to regular tuition.....$30
Breakage Fee.....Actual
Graduating students only: Commencement/Yearbook Fee.....$200
Freshmen/transfer students only: Orientation Fee.....$200

Laboratory Fees

Sciences

Biology, per course, per semester.....$100
Chemistry, per lab hour, per semester.....$40
Physics, per course, per semester.....$75
Psychology, per course, per semester.....$50
Medical Tech Intern, per semester.....$125

English

Film Screen Fee, per course, per semester.....$40
Writing Fee, per course, per semester (excluding WRTG 105, 106, 107).....$25

Communication

Radio Lab Fee, per course, per semester.....$50
TV Lab Fee, per course, per semester.....$50

History/Political Science

Film Screen Fee, History 212 & 218, per course, per semester.....$30
European Union Simulation Fee, PS 331, per course, per semester.....$100

Foreign Language

Language Lab Fee, per course, per semester.....$50

Nursing

Clinical Lab, per lab hour, per semester, undergraduate	$40
Clinical Lab, per clinical course, RN, NURS 481 and 490	$110
Assessment Fee, Juniors, per lab hours, per semester	$40
Assessment Fee, Seniors, per lab hours, per semester	$50
NLN Mobility Examinations (RN students only; 3 exams)	$195

Physical Therapy

Clinical Lab, per hour, per semester	$40

Occupational Therapy

Clinical Lab, per hour, per semester	$40

Art and Music

Music Fee (Music 111, 112, 219)	$30
All Art Courses Lab Fee, per course, per semester	$70
All Art History Courses (except ARTH 140), per course, per semester	$30
Art/Music (ARMU 140)	$30
Art/Music (ARMU 141)	$45

Special Service Fees

Late Tuition Payment Fee	$100
Returned Check Fee	$25
Late Registration Free	$20
Requested change of schedule after classes begin	$15
Change of Major Fee	$15
Off-Campus Course Permission Fee	$25
Certified transcript (per copy)	
Currently matriculated students	$3
All other requests	$5

Tuition Payments

Each semester an invoice displaying your courses, your room assignments, and your semester charges will be mailed to your mailing address. The tuition and fees are payable by the due date listed on the invoice. A **Remittance Form is attached to the bottom of the invoice. This Remittance Form must be returned with payment by the due date. Students paying their bills via Tuition Management System (TMS) or with financial aid must also return the Remittance Form indicating their source of funding.**

Without exception, lab fees must be paid for all courses with a lab requirement. Also, the University Fee must be paid by all College of Arts and Sciences, Panuska College of Professional Studies and Kania School of Management students registered for courses.

No student shall be permitted to receive any degree, certificate or transcript of record until the student's financial account with the University has been settled. For students who graduate or withdraw from the University, any financial account not settled with the University Bursar's Office will be forwarded to an external collection agency. At the time an account is placed with an agency, collection costs become the responsibility of the student, and they will be added to the balance due to the University.

Monthly Payments

The University accepts monthly payment through participation with a professional agency, Tuition Management Services. For application information, please call 1-800-722-4867 or contact them on the Web at www.afford.com. Brochures inviting family participation in a ten-month payment plan are mailed to parents of all incoming students by May of each year. Also, an enrollment form inviting family participation in a four-month semester plan will be included with the fall billing in July and the spring billing in December.

Tuition Insurance

The University, through A.W.G. Dewar, Inc., provides the Tuition Refund Plan (TRP). The plan helps protect your educational investment. When combined with the University's published refund policy, reimbursement totaling 100% of tuition and room and board charges billed by the University will be made if you must withdraw from a term because of a personal illness or accident. In case of withdrawal due to a mental or nervous disorder, 60% of the above charges are covered. Application information is available from the Bursar's Office or you may call A.W.G. Dewar, Inc. at (617) 774-1555.

Alumni Discount

Individuals who have previously earned a baccalaureate degree from The University of Scranton and are taking undergraduate, credit-bearing courses are eligible for 50% tuition reduction.

Family Tuition Reduction

The family tuition-reduction policies applies whenever two or more dependent children from the same family are in attendance during the same semester at the University as full-time undergraduate students. The reduction also applies whenever at least one dependent child in a family is in attendance at the University as a full-time undergraduate student and a parent is enrolled full-time as an undergraduate student. The tuition deduction is equivalent to each student's semester tuition multiplied by 10%. A completed form must be filed in the Bursar's Office each year to receive the reduction for that year. Forms and additional information may be obtained from the Bursar's Office.

Tuition Refunds

The following tuition refund calendar applies to all University students. The amount of tuition refund is dependent on the formal date of withdrawal. Both tuition and fees are refundable during the 100% refund period of a semester. During the partial refund periods, the refund percentage applies only to tuition; laboratory and special service fees are not refundable.

A student billed flat-rate tuition that drops a course(s) within a semester, yet remains enrolled for the semester, may be entitled to a refund following the calendar under two scenarios. If the total course load remaining is below the flat-rate tuition minimum credit load (12 credits), then an applicable refund will calculate. Or, if prior to dropping the course(s), the student's course load was greater than the flat-tuition maximum credit load (18 credits), an applicable refund will calculate.

Recipients of Federal Title IV Financial Aid who completely withdraw are governed by the Federal Refund Policy detailed in the Financial Aid section of the catalog.

Tuition Refund Schedule

Fall/Spring Semester	*Credit*
Before the first day of classes; to and including 10 calendar days	100%
To and including 17 calendar days	75%
To and including 24 calendar days	50%
To and including 31 calendar days	25%
Beyond 31 calendar days of the semester	no refund

Intersession/Summer Sessions	*Credit*
Before the first day of classes; to and including 2 calendar days	100%
To and including 4 calendar days	50%
Beyond 4 calendar days of the session	no refund

Health Insurance

The University offers undergraduate students the opportunity to enroll in an attractive health insurance plan at the outset of each academic year. All students residing in University housing units must participate in the University's sponsored health program, unless written evidence is presented showing coverage under another health program (e.g., parent's health policy).

Student Identification Cards

The University of Scranton provides students with a "one-card" photo-identification system – the Royal Card. Every student attending the University must have a current Royal Card. This card must be presented upon demand for student services, and use of athletic facilities and the library. The Royal Card is used for meals in the dining facilities, residence hall access, photocopying in the library, and may be used as a substitute for cash at many locations on campus. For more information about the Royal Card, contact Royal Card Office at 941-6181.

Scholarships and Financial Aid

The University will help as many qualified students as possible to complete a college education. For this purpose the University maintains an Office of Financial Aid, and all inquiries concerning such assistance should be made to: Director of Financial Aid, 401 St. Thomas Hall, telephone (570) 941-7700, fax (570) 941-4370. Assistance is also available via the Web at www.scranton.edu or by e-mail to finaid@scranton.edu.

Procedures for Applying for Scholarships and Financial Aid

Complete the Free Application for Federal Student Aid (FAFSA). Priority filing date for incoming students is February 15; for returning students, April 15. FAFSA forms are available from high school guidance officers, from the University's Financial Aid Office and online at www.scranton.edu/financialaid.

In order to be eligible for financial aid, students are required to maintain satisfactory academic progress. Standards have been established for federal and University financial aid that measure a student's progress toward a declared educational objective. These guidelines include a maximum time frame for completing a degree, a minimum percentage of credits completed each academic year and a minimum cumulative grade point average. A brief explanation is provided below.

Credit Requirements

Full-time students are expected to complete their undergraduate degrees within six academic years. Part-time students are allotted a period of time that shall not exceed 12 academic years. Students enrolled in The College of Arts and Science, The Kania School of Management and The J.A. Panuska, S.J., College of Professional Studies who are full-time students must successfully complete a minimum of 24 credits per academic year. Students enrolled in Dexter Hanley College as full-time students must complete a minimum of 21 credits, three-quarter-time students a minimum of 15 credits, half-time students a minimum of 9 credits and less-than-half-time students a minimum of 6 credits per academic year. Full-time dependent students who drop below 12 credits per semester may lose coverage under their parents' health insurance plan and may be required to begin repayment of student loans.

Academic Requirements

All students must maintain a cumulative grade point average of 2.00 in order to demonstrate satisfactory academic standing. Academic scholarship recipients are required to maintain a cumulative grade point average of 2.50, 3.00 or 3.25 depending on the scholarship.

Students should consult the Comprehensive Guide to Financial Aid for a full definition of Satisfactory Progress Standards and the appeals process. Copies are available at the Financial Aid Office.

Financial Aid Refund Policy

In accordance with federal regulations, those students who receive federal financial aid and who completely withdraw from the University during the first 60% of a semester will have their federal financial aid (Pell Grants, Supplemental Educational Opportunity Grants, Perkins Loans, Stafford Loans and PLUS Loans) adjusted based on the percent of the semester completed prior to the withdrawal. That is, students will be entitled to retain the same percent of the federal financial aid received as the percent of the semester completed. The date of withdrawal will be the date the student begins the withdrawal process in accordance with the official procedures outlined in the catalog. There will be no adjustment to federal financial aid after 60% of the semester is completed. Students who must totally withdraw from school should consult with the Financial Aid Office on how the refund policy applies to their situation.

Loan and Grant Programs

Federal Perkins Loan Program

The University administers this federal program, which provides 5% interest loans to needy students. A Free Application For Federal Student Aid (FAFSA) is required of all loan applicants.

Federal Stafford Loan Program

Available in cooperation with community banks, credit unions, and savings and loan associations. The University of Scranton's preferred lender is PNCBank. Freshmen may borrow a maximum of $2,625; sophomores, $3,500; and juniors and seniors, $5,500 per academic grade level. The aggregate maximum for undergraduate study is $23,000. Depending on their grade level, independent students may borrow $4000-$5000 in unsubsidized Stafford loans. The Financial Aid Office will pre-certify a loan up to the maximum grade level amount.

Federal Plus Parent Loan

Available for parents of dependent students. Credit-worthy parents are able to borrow up to the difference between a student's cost of attendance and total other financial aid. Additional details and applications are available from community lending institutions.

The Pennsylvania Higher Education Assistance Agency (PHEAA)

Designated by the General Assembly to administer the State Grant Program. Students may be awarded from $200 to $3,300 per year. A FAFSA must be filed by May 1.

Federal Supplemental Educational Opportunity Grant

A federal campus-based program administered by the University. Amounts may range from $200 to $2,500 per year to students who demonstrate exceptional need. Priority is given to Pell recipients. A FAFSA is required for this program.

Federal Pell Grant

Provides federal grants, ranging from $400 to $4,050 per academic year, based on financial need. A FAFSA is required.

Other Financial Aid Programs

University of Scranton Awards

The University offers a number of awards based on academic merit (see "Scholarships") and financial need. All accepted freshmen are automatically evaluated academically for scholarship aid. In order to be considered for need-based aid, students must file a FAFSA.

Federal Work-Study Program

A federal campus-based program that provides employment during the academic year and in the summer for students demonstrating financial need. The majority of the jobs are on-campus positions in various departments and administrative offices. Some jobs, both on and off campus, involve community service. Students seeking campus employment must file a FAFSA and Work-Study Application.

Veterans' Benefits

Veterans and eligible dependents should consult their local Veterans Administration counselor in order to establish their eligibility for participation. The Office of the Registrar certifies enrollment for eligible veterans with the Veterans Administration (VA form 22-1999).

U.S. Army ROTC Scholarships

Please contact the Military Science department in Rock Hall at (570) 941-7457 or 941-6336.

U.S. Air Force ROTC Scholarships

Offers many two- to five-year full- and partial-tuition scholarships for which qualified students may compete if they enroll in U.S. Air Force ROTC. Certain qualified students may also be eligible for a tax-free stipend of $150 a month. All graduating students who successfully complete the AFROTC program receive commissions as second lieutenants and will serve on active duty in the United States Air Force. For more information, contact the Aerospace Studies Department at 1-800-945-5378, ext. 4860.

Office of Vocational Rehabilitation

Under the Pennsylvania Department of Labor and Industry, provides help to qualified students. Residents of other states should inquire about similar programs available in their states of residency.

Scholarships

Each year the University offers merit scholarships which are based on a student's high school record of academic achievement. These scholarships include both President's (full tuition) and Dean's and Loyola (partial tuition) scholarships. Scholarship application procedures are outlined in the University's viewbook.

Scranton Preparatory School Scholarship

This four-year, full-tuition scholarship, initiated in 1947 by the President and Board of Trustees of the University, is given to a graduate of the Scranton Preparatory School.

Selection of the recipient is on the basis of academic achievement, qualities of leadership, service to the Preparatory School, and recommendation of the president and the dean of studies of the Preparatory School.

Purple Club Scholarships

Noteworthy among gifts to University of Scranton students are the significant amounts contributed annually by the Purple Club of Scranton. Since its founding in 1933, the Purple Club has provided special financial support to deserving and qualified students.

Endowed Scholarships

The Eugene J. and Elizabeth J. Agnone Scholarship: This scholarship, established in 1997, aids needy students from the Scranton area who are interested in pursuing careers in medicine.

The Alperin Family Scholarship: Members of the Alperin Family (Irwin E. Alperin, Myer Alperin, Toni Alperin Goldberg, the late Joel M. Alperin and their families) established this scholarship in 1987. It is given to incoming students who have demonstrated excellence in the classroom and financial need. First preference is given to employees of the Alperin family companies and their families, but all worthy students from Lackawanna County and Northeastern Pennsylvania are considered.

The Joseph James and Mary Agnes Andrako Scholarships: These scholarships were established in 1988 according to the provisions in the will of the late Joseph J. Andrako. The scholarships benefit students who have financial need and who are enrolled in a premedical or allied health sciences program.

The Frank A. and Helen S. Baciewicz Scholarship: This scholarship was created in memory of Frank Baciewicz by his family and widow. The student must embody characteristics of generosity, thoughtfulness, humor, and mental and physical tenacity. First consideration is given to students from the Dickson City or Scranton area.

The Michael B. Bagdzinski Memorial Scholarship: This scholarship was established by family, classmates and friends of Michael, a member of the Class of 1999 who passed away during his senior year. The scholarship is given to theatre students at the University.

The Edward F. Bartley Scholarship: Joseph Austin '52 and his wife, Mary, established this scholarship in 1996 to honor Bartley, a University professor emeritus. The scholarship is awarded to students from Lackawanna County, with preference given to students from the Mid-Valley area.

The Rev. John J. Begley, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

The Rev. Paul R. Beining, S.J. Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, is for a student born and raised in Northeastern Pennsylvania and who has demonstrated financial need. First consideration is given to a biology major who maintains an overall B average.

The Velio E. Berardis, M.D., Memorial Scholarship: In 1989 Mrs. Dorothy Berardis established a scholarship to honor the memory of her husband, Velio E. Berardis, M.D. This scholarship provides awards, based on merit and need, to senior premedical students. Special preference is given to those who plan to attend Jefferson Medical College.

The Michael J. Bevilacqua Scholarship: The Bevilacqua family established this scholarship in 1989 as a memorial to honor the late Michael J. Bevilacqua. The scholarship is available to students from families who have more than one student in college at the same time.

The Sarah Beth Beynon Memorial Scholarship of The Scranton Area Foundation: This scholarship was established in memory of Sarah Beth Beynon by her parents. Sarah would have graduated from Pittston Area High School in 2000. The scholarship, which is administered through The Scranton Area Foundation, benefits undergraduate students pursuing a degree in environmental science and graduate students pursuing studies in cancer research.

The Chester and Veronica Bochinski Memorial Scholarship: This scholarship was established by James C. Bochinski '70 and his sister, Marie A. Ryan, in memory of their parents. The scholarship is given to students from Northeastern Pennsylvania who pursue courses of study in psychology, nursing or business administration.

The Frances P. Boland, M.D., Memorial Scholarship: Family, friends and colleagues established this scholarship shortly after Dr. Boland's death in 1987. Each year a grant is given to premedical students. The scholarship is based primarily on merit.

The Paul M. and Joan A. Borick Scholarship: Dr. Borick '47 and his wife established this scholarship for students from Lackawanna and Wayne counties who intend to pursue courses of study in microbiology.

The Margaret Briggs Foundation Scholarship: In 1995 the Margaret Briggs Foundation established this scholarship for an incoming freshman who demonstrates financial need. Students from Lackawanna County are given first consideration; thereafter qualified students from one of the surrounding counties are considered.

The William J. and Elizabeth F. Burkavage Scholarship: Established in 1998, this scholarship is awarded to deserving students in Northeastern Pennsylvania, with first preference to those who live in Lackawanna County.

The Burke Family Scholarship: Income from this scholarship benefits needy and deserving students. The Burke family was originally from the Hyde Park section of Scranton. Thomas F. Burke, Class of 1909, played a leadership role in establishing the scholarship.

The Alio J. Buselli Memorial Scholarship: Mrs. June Buselli established this scholarship in memory of her husband to assist incoming freshmen from Lackawanna County pursuing degrees in science.

The Rev. Henry J. Butler, S.J., Memorial Scholarships: The first scholarship, for students from Bishop Hannan High School in Scranton, was established in 1984 by James Summers in honor of the executive vice president of the University who died in office in 1981. A second Butler Scholarship, for students from Scranton High School, was established in 1985 by John A. McCrane, a classmate of Father Butler at Georgetown University.

The Private Frank J. Cali Scholarship: Mr. and Mrs. Samuel C. Cali created this scholarship in memory of Mr. Cali's brother. It is available to any student who meets the University's qualifications.

The Bridget Carney Scholarship: This scholarship was established in 1972 by a bequest of James I. Kearney, M.D. Income from the scholarship, which is named to honor the memory of Dr. Kearney's mother, is awarded to students, one or both of whose parents were or are parishioners of St. Ignatius Parish, Kingston, Pennsylvania.

The Class of 1952 50th Reunion Scholarship: In recognition of its Golden Anniversary Reunion, the Class of 1952 established this scholarship, which is based on financial need and academic merit.

The James J. Clauss Scholarship: Established in 1973 by a local businessman and alumnus from the Class of 1947, this scholarship provides aid to students who require financial assistance but do not qualify for most aid programs based on financial need. First consideration is given to Northeastern Pennsylvania students.

The Jon A. Clauss Scholarship: An endowed scholarship was established in 1980 to honor the memory of Jon A. Clauss, son of Dr. and Mrs. Thomas F. Clauss of Justus, Pennsylvania. Income from the scholarship is distributed to deserving young men and women.

The Condron Ambition and Achievement Scholarship: Established in 2000 by Christopher M. Condron '70, this scholarship benefits incoming freshmen in The Kania School of Management who demonstrate exemplary ambition and self-achievement, particularly in non-academic areas. First preference is given to students from Lackawanna County, followed by those from Luzerne County and other counties in Northeastern Pennsylvania.

The Rev. James J. Conlin, S.J., Scholarship: This scholarship provides financial assistance based on academic excellence as well as demonstrated need.

The James A. and Joan Connolly Scholarship: Mr. Connolly '43 and his wife established this scholarship which provides financial assistance based on academic excellence and demonstrated need.

The Louis and Ernestine DeSarro Cortese Memorial Scholarship: Vincent E. Cortese '37 established this scholarship in 1998 in memory of his parents. Students must be enrolled in The College of Arts and Sciences.

The Cottone Scholarship: A bequest from Benjamin J. Cottone, M.D., '27 established this scholarship for pre-medical students.

The Grace Courtney Scholarship: Raymond S. Courtney established this scholarship with a bequest in memory of his wife. It provides financial assistance to students who meet the University's admission requirements, with preference given to students majoring in foreign language.

The Cruciani Family Scholarship: Dominick A. Cruciani, Jr., M.D., '54, his wife, Florence, and their family have established this scholarship for

students from Mid-Valley and Valley View high schools who intend to pursue courses of study in health-allied fields.

The William J. Cusick Purple Club Scholarship: Mr. Cusick '52 established this scholarship, based not on academic merit but on demonstrated financial need, for students residing in New Jersey or eastern Pennsylvania.

The Salvatore Cusumano Family Scholarship: This scholarship, established through a bequest from Mr. Cusumano, is awarded to students who are enrolled in the pre-medical program and who have demonstrated financial need.

The Harold Davis, M.D., Scholarship: This scholarship, established in 1994, is presented to a female undergraduate from Northeastern Pennsylvania pursuing a degree in the health sciences. The recipient must be involved in extracurricular activities. Both financial need and scholastic merit are considered.

The Rev. Royden B. Davis, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

The Shirley A. DiAndriola Scholarship: Established in 1998 through a bequest in the will of Shirley A. DiAndriola, this scholarship is intended for graduates of Old Forge High School attending The University of Scranton.

The Eugene J. Donahue Scholarship: This scholarship was established in 1997 in memory of John and Ann Donahue by Eugene Donahue, a resident of Clarks Summit and a 1968 graduate of The University of Scranton. The scholarship is for students who show a demonstrated need, and first consideration is given to students residing in Lackawanna County. Recipients must be enrolled in the University's Dexter Hanley College.

The Judith A. Doyle Scholarship: This scholarship was created by Joseph T. Doyle '69 in honor of his wife and in appreciation of his Jesuit education at The University of Scranton. The scholarship provides financial assistance to deserving and needy students.

The Denise Dubbels Memorial Scholarship: This scholarship was created by students and faculty members in memory of Denise, an Honors Program student and member of the Special Jesuit Liberal Arts program, who was killed in an automobile accident while studying in Russia. Her degree was conferred posthumously in 1994. The scholarship aids students who plan to study in developing countries.

The Attorney John J. and Joanne M. Dunn, Sr., Scholarship: Attorney and Mrs. John J. Dunn, Sr., established this scholarship in 1998 for students enrolled in the University's Kania School of Management. Preference is given to residents of Lackawanna County.

The Robert I. Edelsohn Scholarship: In 1964 a sum was bequeathed in the estate of Robert I. Edelsohn, a Polish immigrant who became a Scranton businessman and realtor. Income provides scholarships for needy and deserving students at the University.

The Educational Freedom Scholarship: In 1990 Joseph E. McCaffrey '38 established this scholarship to aid students who graduate from Lackawanna County parochial schools. Mr. McCaffrey, a member of the New Jersey Chapter of Citizens for Educational Freedom, passed away in 2000.

The ETR and Associates, Inc., Scholarship: This scholarship was created by Robert E. Lee, president of ETR and Associates, in appreciation of the fine Jesuit education his daughter received at The University of Scranton. It is open to any student demonstrating personal financial need.

The Peter J. Farrell and Maida Lippert Farrell Scholarship: Proceeds from this scholarship, established in 1988 by Professor Matthew C. Farrell, Ph.D., are intended for students of Native American ancestry.

The John Francis Finetti Memorial Scholarship: This scholarship was established by the family of a young man from the Hill neighborhood near the University's campus. It is for students who demonstrate ability in one or more of the areas of history, music, forensics and theatre, with preference given to students from Lackawanna County.

The Laureen Finn Memorial Scholarship: Laureen Finn died in her sophomore year at The University of Scranton. Family, friends and fellow members of the Class of 1990 established this scholarship in her memory. Proceeds assist a freshman education or English major with preference given to residents of Englishtown, New Jersey.

The Martha and Herbert Finn Memorial Scholarship: This scholarship was established by William H. Finn '67 in honor of Martha and Herbert Finn. The proceeds are to assist students from southern Connecticut and Westchester, Nassau and Suffolk counties in New York.

The Martha Fitch Scholarship: In 1955 a bequest was made to the University by Miss Martha Fitch, a retired nurse and former superintendent of Thompson Hospital, Scranton. Income is used to provide scholarships for needy and deserving students.

The Rev. John J. Fitzpatrick, S.J., Scholarship: This scholarship honors the Rev. John J. Fitzpatrick, S.J., who, prior to his death in 1987, served The University of Scranton for 22 years in various roles including dean of men, Jesuit minister, student counselor and University chaplain. The scholarship helps students of academic excellence who have demonstrated financial need. Preference is given to students from Northeastern Pennsylvania who are enrolled in Dexter Hanley College. The scholarship was established through the generosity of Midori Y. Rynn, Ph.D., professor of Sociology/Criminal Justice.

The Fitzsimmons Family Scholarship: Mr. and Mrs. Edward Fitzsimmons of Gladwyne, Pennsylvania established this scholarship in 1996. It is intended to benefit qualified freshmen from northeast Pennsylvania with demonstrated need.

The Fleet Pennsylvania Services Scholarship: Sons and daughters of Fleet Pennsylvania Services employees are eligible for this scholarship. The University's financial aid office selects students on the basis of financial need.

The James H. Foy, M.D., Memorial Scholarship: Established in 1987 by Dr. and Mrs. Joseph J. Rupp to honor Dr. Foy, whose encouragement and support helped Dr. Rupp in his education, the scholarship is given to premedical students who also demonstrate proficiency in the humanities.

The James M. Franey Scholarship: This scholarship, started from a bequest from the estate of Mr. James M. Franey, benefits students from Northeastern Pennsylvania.

The Sara G. Friel Memorial Scholarship: Before her death in 1982, Sara G. Friel, aunt of then–University president, Rev. William J. Byron, S.J., directed that part of her estate be used to assist deserving and financially needy students each year.

The Joseph P. Gallagher Memorial Scholarship: The Greater Scranton Chamber of Commerce created this scholarship in 1995 to honor the memory of Mr. Gallagher, who was employed by the Chamber for 15 years. The scholarship is given annually to a senior who is the son or daughter of an employee of any current member of the Chamber.

The Morris and Mae Gelb Scholarship: Established in 1989 through gifts from the Gelbs and members of their family and friends, this scholarship benefits deserving and needy students of all faiths attending the University.

The Rev. Joseph G. Gilbride, S.T.D., Memorial Scholarship: This scholarship is for residents of Peckville (Blakely Borough), Carbondale, Throop, Nanticoke, and the Parsons Section of Wilkes-Barre and Plymouth, all of Northeastern Pennsylvania. It was established by Fr. Joseph G. Gilbride, prior to his death, to provide assistance to needy and worthy students.

The Dr. and Mrs. John Giunta Scholarship: Professor Giunta created this scholarship out of his loyalty to The University of Scranton and his appreciation for the fine education his own children received here. The scholarship is given to students pursuing degrees in economics.

The Peter S. Graybar Memorial Scholarship: Created to honor Peter S. Graybar, a beloved friend and active member of The University of Scranton's Class of 1993, this scholarship provides assistance to a junior who has demonstrated active involvement in extracurricular activities.

The Edward T. Groncki Scholarship: Established to honor the memory of a University of Scranton alumnus, this scholarship is for deserving young men and women who live in Lackawanna County.

The Irving and Edythe Grossman Scholarship: This scholarship was created out of the generosity of Irving and Edythe Grossman and is a memorial in their honor. Eligible students must demonstrate academic achievement and participation in community service.

The Judge Frederick W. Gunster Scholarship: The estate of Joseph F. Gunster '17 provided funds for this merit scholarship to honor the memory of Joseph's father.

The Margaret Gunster Scholarship: Joseph F. Gunster's mother is remembered through a scholarship designed to assist students from low-income families.

The Ruth Gunster Memorial Scholarship: In 1971, Joseph F. Gunster '17 established this scholarship in loving memory of his wife. The scholarship, which was increased by a bequest in 1980, benefits students from Northeastern Pennsylvania.

The John and Lucille Guzey Scholarship: Begun in 1978, this scholarship assists members of the Scranton Boys and Girls Club as well as students with financial need.

The A.J. Guzzi General Contractors, Inc., Scholarship: Angelo J. Guzzi created this scholarship to assist qualified and deserving students from a high school in Abington Heights, Valley View, Mid-Valley or Lakeland. The recipient is an incoming freshman who demonstrates financial need.

The Rev. Joseph M. Hamernick, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

The Rev. Dexter Hanley, S.J., Scholarship: This scholarship, named for the late Dexter Hanley, S.J., Esq., former president of The University of Scranton, assists nieces and nephews of University Jesuit personnel.

The Sarkis R. Hazzouri, Jr., Memorial Scholarship: This scholarship was established in 1997 to assist incoming freshmen from Lackawanna County. First preference is given to graduates of West Scranton High School who intend to enroll in The Kania School of Management.

The William Randolph Hearst Foundation Scholarship: Graduates of The University of Scranton's pre-college program, the University of Success, are eligible to receive this scholarship.

The Rev. William B. Hill, S.J., Scholarship: This scholarship was established by the late Gerardine C. Hill to honor her brother, Rev. William B. Hill, S.J. Between 1969 and 2002, Fr. Hill served in several administrative positions at The University of Scranton, including that of special assistant to the president.

The Hill Neighborhood Association/Peter Cheung Scholarship: This scholarship, named in honor of Peter Cheung, who died in an accident while an undergraduate, benefits a junior or a senior who has demonstrated service to the neighborhood and the University community. Preference is given to residents of the city of Scranton's Hill neighborhood.

The Hoeschele-Steinmetz Scholarship: This scholarship was established by General Electric in honor of David B. Hoeschele '50. Mr. Hoeschele was chosen by General Electric for a prestigious award for his leadership in the field of electronic circuit design. He requested that funds be used to establish a scholarship for United States citizens or permanent residents from Northeastern Pennsylvania, who are enrolled as full-time undergraduates in either the physics or electrical engineering program. This scholarship is based on need and academic merit.

The George Ronald Holmes, Ph.D., Scholarship: Dr. Holmes, an alumnus of the Class of 1961, and his wife started this scholarship to provide aid to junior and senior psychology majors.

The Robert V. Horger Scholarship: This scholarship, established by Robert V. Horger, a prominent Scranton banker, is given to qualified students from the incoming freshman class who demonstrate financial need.

The Frank and Jean Hubbard Scholarship: This scholarship, established through a generous gift from Frank and Jean Hubbard, is for graduates of North Pocono High School in the top 25% of their class who have demonstrated financial need.

The ITT Scholarship: The International Telephone and Telegraph Corporation established this scholarship to encourage students to pursue academic excellence. The Office of Admissions annually selects an incoming freshman to receive the scholarship, which is renewable on the basis of academic achievement.

The Jesuit Community Scholarship: Substantial annual gifts from The University of Scranton Jesuit Community have made possible an endowment to provide unrestricted scholarship aid to deserving students. Most scholarships are based on financial need and academic achievement.

The Jethro Scholarship: Established by a University faculty member, Dr. Everett R. Brown, this scholarship is awarded to a freshman management, marketing or economics/ finance major who demonstrates that he or she has earned a significant amount of total college expenses. It is not dependent upon financial status of parents or guardians nor high school grades, and is available for four years, as long as the recipient maintains a grade point average of 3.00 or better.

The B. Carl Jones Memorial Scholarship: This scholarship was established in 1988 by family, friends and colleagues of the late B. Carl Jones, a University trustee and benefactor. The scholarship provides financial assistance, based on need, to students from Lackawanna County who are enrolled in The Kania School of Management.

The Stanley Karam Scholarship: Fred C. Karam established this scholarship in 2000 to honor his father. Lackawanna County residents are eligible for the scholarship, with first preference to graduates of West Scranton High School who enroll in The Kania School of Management.

The Francis J. Kearney Scholarship: A 1977 gift from a retired pharmacist, followed by a bequest in 1979, made possible this scholarship to assist deserving students in need of financial aid.

The Koch-Conley American Legion Scholarships: Established in 1985 by agreement with the American Legion, these scholarships are provided on the basis of academic achievement and financial need. First preference is given to children and grandchildren of the members of the Koch-Conley American Legion Post 121. Thereafter, family members of other Pennsylvania American Legion Post members may be considered.

The Rev. Stephen A. Kollar Memorial Scholarship: This scholarship was established in 1977 from the will of the late pastor of Holy Family Church in Scranton. Applications must be considered in the following priority: (1) Kinship to Rev. Stephen Kollar; (2) Members of the Holy Family Church for a minimum of three years prior to filing the application. In the event that there are no eligible candidates in these categories, other needy students may be considered.

The Mary R. Walsh Krahe Scholarship: Established in 1987 by Mary R. Walsh Krahe in memory of her brothers, Nicholas E. Walsh and William E. Walsh, and the Walsh family of Old Forge, this scholarship provides support to students from Lackawanna County with preference given to students who attended Old Forge High School.

The Kuehner Scholarship: This scholarship was established by Carl '62 and Joanne Kuehner of Naples, Florida, in 1985. The scholarship provides financial assistance to needy students from single-parent families in Lackawanna County.

The Lackawanna Medical Group Scholarship: This scholarship provides assistance to students from Lackawanna County who are in financial need and who intend to pursue careers in health-related professions. First preference is given to children of persons affiliated with Lackawanna Medical Group.

The Lanahan Gecawich Scholarship: Established in 1996, this scholarship benefits qualified, female first-year students with demonstrated need. Preference is given to students pursuing a degree in elementary education.

The Rev. John W. Lange, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

The Joseph F. and Robert G. Lavis Scholarship: In 1990 a gift was made to the University through the estate of Robert G. Lavis, a Scranton businessman. Income from this gift provides a full four-year scholarship to an incoming freshman. This scholarship also helps junior and senior students who have a reduction in their ability to meet educational expenses.

The Edward P. Leahy Scholarship: This scholarship was established in 1989 by Edward R. Leahy, Esq., '68 in honor of his late uncle and provides aid to needy students.

The LF Brands, Inc., Scholarship: This scholarship provides financial assistance for children of current and past employees of LF Brands (formerly Leslie Fay). It is based on academic achievement and financial need, and first consideration is given to students who intend to enroll in the University's Kania School of Management.

The Ralph J. Lomma Scholarship: This scholarship, created in honor of distinguished Scranton businessman Ralph Lomma '49, is presented to students with outstanding high school records. A full-tuition scholarship is awarded every four years to one student.

The William V. Loughran and Albert E. Peters Scholarship: Established in 1985 through a gift of Albert E. Peters and Elizabeth Loughran Peters, this scholarship assists seniors who intend to pursue graduate studies in the fields of science and medicine. The scholarship is based on merit and need.

The Bruce Lowenberg and John McLean Kelly Memorial Scholarship: Established in 1988 by Mrs. Frances McLean Lowenberg, this scholarship benefits qualified and deserving young men and women.

The Clare Boothe Luce Scholarship: A grant from the Clare Boothe Luce Fund provides undergraduate scholarships to enrolled female students majoring in mathematics and the physical and computing sciences.

The Frank J. and Mae C. MacEntee Memorial Scholarship: Established by the MacEntee family in memory of their beloved parents, this scholar-

ship assists deserving students with their education costs.

The Frank J. MacEntee,S.J., Memorial Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

The Beth Anne and Brian S. Mackie Memorial Scholarship: This scholarship was created in 1991 as a memorial to Beth Anne Mackie by her parents and renamed in 1998 after the death of Beth Anne's brother, Brian. The eligible student must be a psychology major who demonstrates academic excellence.

The Edward J. and Alice Manley Scholarship: Mr. Manley '60, a former chair of the University's Board of Trustees, and his wife established this scholarship for students who live in Lackawanna County.

The Sally and Richard Marquardt Scholarship: This scholarship was established in 1997 by Mr. and Mrs. Marquardt, residents of Waverly. It is given each year to qualified local students.

The John P. Martin, Ed.D., Scholarship: Established in 2002, this scholarship is for undergraduate students preparing for the priesthood.

The Rev. Thomas D. Masterson, S.J., Scholarship: This scholarship was established by the Scranton Jesuit Community and friends of Fr. Masterson in honor of the 50th anniversary of his ordination into the priesthood. The need-based scholarship is for graduates of Loyola Blakefield High School in Towson, Maryland.

The Martin L. Mattei Memorial Scholarship: Mr. Mattei '42, the first superintendent of schools in the Pittston Area School District, passed away in 1999. His family established this scholarship for Pittston Area High School graduates who demonstrate high academic achievement and financial need.

The Florence Zygmunt McAndrews and Emma Kacer Scholarship: This scholarship was established anonymously in 2001 in honor of two nurses who touched the lives of those in their care with compassion. The scholarship is for nursing students from Northeastern Pennsylvania, with first consideration to residents of Lackawanna County, and is based on financial need and a demonstrated commitment to serving others.

The Congressman and Mrs. Joseph McDade Program of Public Service: This scholarship, established in 1990, supports students majoring in political science who are doing internships in Scranton-area government offices with the intention of pursuing careers in public service.

The Joseph M. McDade Scholarship: Contributions from two special tributes in 1998 to retiring U.S. Congressman McDade were used to establish this scholarship to provide need-based financial aid for students from Northeastern Pennsylvania.

The Robert L. McDevitt, K.S.G., Scholarship: This scholarship, established in 1977, provides assistance to qualified and deserving Dexter Hanley College students. The scholarship was established by Robert L. McDevitt, K.S.G., a Georgetown University classmate and long-time friend of the late Rev. Dexter L. Hanley, S.J., who served as president of the University from 1970 to 1975.

The Patrick J. McGeehan Memorial Scholarship: Mrs. Betty Ann McGeehan established this scholarship in 2000 to celebrate the 50th anniversary of her husband's graduation from the University. The scholarship is for residents of Luzerne County.

The Monsignor Andrew J. McGowan Scholarship: The F.M. Kirby Foundation, Inc., established this scholarship to honor Msgr. McGowan, a University trustee emeritus and honorary degree recipient. It is used to assist deserving students who reside in either Lackawanna County or Luzerne County.

The Joseph J. McGrail, CPA, Scholarship: Joseph J. McGrail, an alumnus, established this need based scholarship for third- and fourth-year students attending the University. Residents from Lackawanna County are given first preference for this academic scholarship benefiting students enrolled in The Kania School of Management.

The Rev. Bernard R. McIlhenny, S.J., Scholarship: Joseph A. Quinn, Jr., '63 established this need-based scholarship to honor Admissions Dean Emeritus Fr. McIlhenny, and also to honor his parents, Mary and Joseph A. Quinn, Sr. First consideration is given to residents of Luzerne County, followed by residents of Lackawanna County.

The John J. and Kathleen McLaine Memorial Scholarship: John J. McLaine '71 established this scholarship in 1997 to honor his parents. Preference is given to students from Lackawanna County who are enrolled in The Kania School of Management.

The John P. McLean Scholarship: The scholarship was established in 1985 by former trustee Thomas E. Sheridan '60 and many other alumni, students, family and friends to honor Professor John P. McLean, a faculty member for over 50 years. It is presented to deserving accounting students.

The Charles E. Merrill Scholarship: In 1969, the Charles E. Merrill Trust of New York City made a gift to the University to assist students of the Catholic faith.

The Andrew and Margaret Chorba Mezick Scholarship: This scholarship, established by James A. and Mary P. Mezick in honor of Dr. Mezick's parents, is given each year to a qualified incoming freshman, with preference given to students with demonstrated need from the Mid-Valley area.

The Rev. J. Patrick Mohr, S.J., Scholarship: This need-based scholarship, established by the Scranton Jesuit Community to honor one of its own, is for graduates of Gonzaga High School in Washington, D.C.

The Angelo H. Montrone Scholarship: This scholarship was established by Paul M. Montrone '62, president of the Henley Group, Inc., to honor his father. It assists a Kania School of Management student who best exemplifies Mr. Montrone's father's lifelong dedication to self-improvement and ethical behavior in business.

The Dr. Leslie E. Morgan Scholarship: This scholarship was established through a bequest from Dr. Morgan to assist persons studying to become members of one of the health-services professions.

The I. Leo and Ann Moskovitz Scholarship: Mr. and Mrs. Moskovitz, community leaders and friends of the University, established this scholarship for students who intend to pursue careers in business or science, with first preference given to those who live in Lackawanna County.

The Joseph F. Mullaney Scholarship: A bequest from Dr. Mullaney '38 established this scholarship for physics, mathematics and science students.

The Robert W. Munley Scholarship: This scholarship was established by Robert W. Munley, Esq., and Judge James M. Munley to honor their father, Robert W. Munley. It supports deserving students from Lackawanna County.

The Murphy Scholarship: This scholarship was established in 1957 through a bequest of Miss Margaret Murphy, a retired schoolteacher and lifelong resident of Scranton. Margaret and her sister, Katherine, made the award "in loving memory of our mother, father, and brothers" to assist needy and deserving students.

The Dr. Louis and Muriel Murphy Scholarship: Dr. and Mrs. Murphy, longtime friends of the University, established this scholarship to provide financial assistance to deserving and needy students.

The James Nasser Family Scholarship: This scholarship was established in 1986 by Mr. and Mrs. James R. Nasser. Preference is given to needy pre-med students from Lackawanna County.

The NEPA APICS Scholarship: This scholarship was established in 1987 by the Northeastern Pennsylvania Chapter of the American Production and Inventory Control Society for qualified junior or senior students enrolled in the Operations Management major of The Kania School of Management and/or active members of The University of Scranton Chapter of APICS.

The Newcombe Endowed Scholarship: A series of grants from the Charlotte W. Newcombe Foundation, along with matching funds from the University, established this scholarship, which provides financial assistance to mature, second-career female students.

The New York Metropolitan Chapter, The University of Scranton Alumni Society Scholarship: This scholarship assists undergraduate students on an annual basis.

The R. Barrett Noone, M.D., Scholarship: Dr. R. Barrett Noone, a graduate of the University, established this scholarship for University students residing in Bradford, Sullivan, Philadelphia, Montgomery or Delaware Counties. The scholarship recipient will be a pre-med major.

The Marian R. Oates Memorial Scholarship: This scholarship, established in memory of an alumna who died in an automobile accident shortly after her graduation in 1990, benefits middle-income students from New Jersey enrolled in The Kania School of Management.

The Raymond S. O'Connell Scholarship: Shortly before his death in 1981, Raymond S. O'Connell '42 established a scholarship for needy students. After his death, his sister, Sara E. O'Connell, completed the gift.

The Frank O'Hara Scholarship: This scholarship was established in 1988 by friends and family of "Mr. University," Frank O'Hara. Mr. O'Hara served in many capacities over a long career with

the University. This scholarship, established in his memory, provides assistance to deserving and needy students.

The Marian M. and Patrick F. O'Hara Scholarship: Income from an endowment provides unrestricted scholarships to deserving young men and women.

The Oppenheim Family Scholarship: This scholarship was established by the Oppenheim family, who for many years owned and operated Oppenheim's Department Store and its predecessor, the Scranton Dry Goods Co. Income from the scholarship is used primarily for part-time, non-traditional students who need financial assistance.

The Rev. G. Donald Pantle, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

The Dr. Andrew W. Plonsky Scholarship: Dr. Plonsky '40, longtime faculty member and co-founder of the University's Computer Science program, passed away in 2000. His widow, Dorothy, established this memorial scholarship for Lackawanna County residents who are studying computing science.

The Paul J. Poinsard, M.D., Scholarship: Mrs. JoAnne Poinsard established this scholarship in memory of her husband, a University alumnus. The scholarship assists deserving students in pre-medicine.

The Rev. George C. Powell and Msgr. John K. Powell Memorial Scholarship: The Powell family established this scholarship to provide financial assistance to deserving and needy students who also demonstrate good character and leadership qualities.

The Rev. Edward R. Powers, S.J., Scholarship: This scholarship provides financial assistance based on academic excellence as well as demonstrated need.

The Ernest D. Preate, Sr., Memorial Scholarship: The family of Ernest D. Preate, Sr., Esq., established this scholarship in 1982. First consideration is given to needy students who are residents of Lackawanna County.

The Rev. J. J. Quinn, S.J., Scholarship: This scholarship honors Rev. J.J. Quinn, S.J., professor emeritus of English. It was started by alumni and former students to honor Fr. Quinn's many years of service to the University, his students and the community. Based on merit and need, the scholarship is available to students in all academic disciplines.

The Frank X. Ratchford Memorial Scholarship: Mrs. Patricia A. Ratchford and her family established this scholarship in memory of Mr. Ratchford '61, who died in 1999. The scholarship, based equally on financial need and academic merit, is for residents of Scranton and Dunmore who are majoring in English, philosophy, or human resources.

The Betty Redington Scholarship: This scholarship was established through a bequest from Mrs. Redington, a former trustee and a long-time friend of the University and its students. The scholarship benefits students who are most in need of financial support to pursue their education.

The Francis E. and Elizabeth Brennan Redington Scholarship: This scholarship was established in 1984 according to provisions in the will of the late Francis E. Redington. It provides financial assistance to students on the basis of both ability and need. Some portion of the income each year supports scholarships for students from the Republic of Ireland.

The John Charles and Kathryn S. Redmond Foundation Scholarship: Mr. Redmond, a prominent businessman and honorary degree recipient, established this scholarship before his death in 1989. The scholarship is given to an outstanding student who is not eligible for any direct financial aid, as specified by state or federal regulations, but who shows financial need because of the student's family situation (e.g., number of children in school needing parental support).

The Raymond M. Reed Scholarship: This scholarship, established by Mr. and Mrs. Raymond M. Reed, is awarded to students residing in Dunmore or Scranton. Students are selected based on merit and financial need.

The Dr. Richard A. Rendich Educational Scholarship: This endowed scholarship was established by the family of Grace Rendich, a University alumna. Income from the fund is used to assist in the education of needy young men aspiring to the priesthood.

The Road Scholarship: James C. Barrett '73, president of Road Scholar Transport, established this scholarship for his employees and their families.

The John M. Robinson Scholarship: This scholarship was established by John M. Robinson, who attended the University and subsequently

established LPS Industries, Inc., in Newark, New Jersey. The scholarship assists promising and deserving students, with Scranton-area residents receiving first consideration.

The Patrick and Marie C. Roche Scholarship: Out of their affection for the University and respect for the school's mission, Scranton natives Patrick and Marie Roche created this scholarship for eligible Lackawanna County students.

The Mary Kay/Rochon Scholarship: This scholarship was set up by John Rochon and the Mary Kay Foundation. It is awarded to bright female students in economic need.

The Rev. Joseph A. Rock, S.J., Scholarship: Created in memory of Fr. Rock, who served the University as professor of history, academic vice president and, in 1970, acting president, this scholarship assists students in the Academic Development Program.

The Rev. Richard W. Rousseau, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, is based on academic merit and financial need.

The Robert Ryder Scholarship: Established in 1988 by John Diskin '67 and Coopers and Lybrand as a tribute to Mr. Robert Ryder, longtime vice president for finance/treasurer, the scholarship assists local students of the city of Scranton or the borough of Dunmore.

The Charles V. Sabatino, Sr., Scholarship: This scholarship was established in 1990 by Frank C. Sabatino, Esq., '76 as a memorial to his father. It is based on merit and is awarded to a sophomore who is studying history.

The Josephine Sarcinelli Memorial Scholarship: Med Science Laboratory in Scranton established this scholarship in 1983 to honor the memory of Josephine Sarcinelli, the office manager of the firm for many years. The scholarship is given to an incoming freshman from Lackawanna County who is in financial need and intends to major in medical technology.

The Rev. George Schemel, S.J., Scholarship: This scholarship, established in 2000 by the University's Jesuit community to honor the late Fr. Schemel, is based on academic merit and financial need.

The John J. Scott, Jr., Memorial Scholarship: Mr. and Mrs. John J. Scott, Sr., established this scholarship in memory of their son, a member of the Class of 1969, who died in 2000. The scholarship is for graduates of Scranton Preparatory School, based on financial need, academic merit and extracurricular activities.

The Scranton Times/Sunday Times/Tribune Scholarship: This scholarship was established by the Lynett-Haggerty families to provide support to current newspaper carriers who are attending The University of Scranton. Employees and their family members also are eligible.

The Vincent E. Sedlak Scholarship: Mr. Vincent A. Sedlak, a University graduate, established this scholarship though a bequest. Income from the fund benefits any student who is majoring in chemistry.

The Charles and Josephine Shander Scholarship: A trust established this scholarship which provides financial assistance to students from Lackawanna County's Mid-Valley area who have at least one parent of Polish, Slovak, Russian or Lithuanian descent.

The Thomas J. Shevlin, Jr., and Dr. John F. Shevlin Scholarship: Established in 1989 through a bequest from Thomas J. Shevlin, Jr., of Carbondale, Pennsylvania, this scholarship assists deserving young men and women in premedical studies.

The Paul J. and Virginia P. Shields Scholarship: This scholarship was established in 2002 by Mr. and Mrs. Paul J. Shields. Income from this scholarship is used to assist any deserving undergraduate as determined by the Financial Aid Office.

The Mary and Dana Silvon Memorial Scholarship: Joseph T. Doyle '69 and his wife, Judith, established this scholarship in memory of Mrs. Doyle's sister and niece. The scholarship is available to graduates of Seton Catholic High School in Pittston.

The Specialty Group, Inc., Scholarship: The scholarship was established in 1988 for graduates of Dunmore High School and Bishop O'Hara High School in Dunmore.

The Francis J. Stahl, Class of 1935, Memorial Scholarship: This scholarship was established through the will of Mary T. Stahl and her husband, Francis J. Stahl '35. The scholarship assists local needy students.

The Tom and Salsey Sullivan Scholarship: In 2000, Mr. and Mrs. Sullivan established this scholarship to be awarded solely on the basis of financial need, not academic merit.

The Amelia Suraci Scholarship: This scholarship was established in 1977 by the late Mr. Frank Suraci, chairman of Parodi Cigar Corporation, to honor his wife, Amelia. After Mr. Suraci's death, contributions from the Suraci and Keat-

ing families were added to the endowment. Each year, the scholarship benefits deserving and needy students.

The Robert J. and Joan J. Sylvester Scholarship: Arthur J. and Angela V. Kania established this scholarship to honor Mr. and Mrs. Sylvester. Mr. Sylvester retired in 2001 after serving 18 years as the University's Vice President for Institutional Advancement. The scholarship is for students from Lackawanna County with first consideration to graduates of Abington Heights, Scranton Preparatory and Valley View high schools.

The TRL Associates Scholarship: This scholarship was established by Stephen P. Hrobuchak, Jr., President of TRL, Inc., to benefit TRL employees and their children.

The UNICO Scholarship: The UNICO Foundation of the Scranton Chapter of UNICO National, a philanthropic group, established this scholarship in 1980 to offer financial assistance to deserving students.

The United Gilsonite Laboratories Scholarship: This scholarship, established in 1999, is available to U-G-L employees and their families.

The University of Scranton Alumni Society Scholarship: This scholarship, established through contributions by the Alumni Society, is available to children and grandchildren of University of Scranton alumni and alumnae.

The Charles J. Volpe Scholarship and Lecture Fund: Established in 1988 in memory of Charles J. Volpe, a well-respected Scranton businessman and public servant, the scholarship provides assistance for a student entering the senior year who is majoring in political science. The Lecture Fund provides for an annual lecture featuring a well-known public servant.

The Mary and Patrick Volpe Scholarship: In honor of her parents, Angela V. Kania established this scholarship, for graduates of Old Forge High School enrolled in The Kania School of Management.

The Paul L. Waleff Memorial Scholarship: This scholarship was established by the parents of Paul L. Waleff, who died in 1984 while a student at The University of Scranton. The scholarship is presented to a junior or senior who plans a career of service to persons with disabilities.

The WEA Manufacturing Scholarship: This scholarship was established in 1999. Sons and daughters of WEA Manufacturing employees are eligible for this scholarship. Employees must have worked at WEA for a minimum of three years.

The Weinberger Family Scholarship: This scholarship was established by Jerry Weinberger, Esq., in 2002 for any eligible student from Lackawanna County as determined by the Financial Aid Office.

The Thomas P. White Scholarship: Mrs. Ilene White established this scholarship to honor the memory of her husband, Thomas. It is awarded to an education major who is a "non-traditional" student, such as a transfer student or an individual returning to school after an absence.

The William Zahler Scholarship: In 1986, Mr. and Mrs. William P. Zahler of Mayfield Heights, Ohio, established a scholarship in memory of their son William Zahler, Jr., an associate professor of English at the University. Income from the scholarship is distributed to deserving young men and women.

Annual Scholarships

The Aventis Pasteur Scholarship: Each year, two graduate students who have demonstrated excellence in the field of biology and who are pursuing biochemistry master's degrees are selected for summer internships at Aventis Pasteur's Swiftwater location.

The Rita and Bernard Bagley Memorial Scholarship: Established in 1990 by the children of Mr. and Mrs. Bagley, this scholarship is available to residents of Sullivan County, with preference to parishioners of St. Basil's Church in Dushore.

The Dr. A.J. Cawley Scholarship: In memory of Dr. A.J. Cawley of Pittston, a scholarship was established by a legacy from his sister, Miss Ellen Cawley. A scholarship is given each year to a student majoring in electrical engineering.

The Len and Deborah Gougeon St. Ann's Scholarship: Established in 1986 through a gift from Drs. Len and Deborah Gougeon, this scholarship, based on need, provides assistance to a graduate of St. Ann's Elementary School or a member of St. Ann's Monastery Parish in Scranton.

The Joseph P. Harper Scholarship: A scholarship was established in 1967 to honor the memory of Joseph P. Harper, professor of physics. An annual scholarship is given to a senior physics major upon the recommendation of the physics department and with the approval of the director of financial aid. The department of physics presents, with the scholarship, a citation reminding the recipient of the high scholarly ideals, exemplary life, and dedicated service of Professor Harper.

The Kathryn and Bernard Hyland Memorial Scholarship for Excellence in Biology: A gift from alumnus Bernard V. Hyland, M.D., made in loving memory of his parents, established an endowment in 1980 to perpetuate this annual scholarship. The scholarship is presented to a graduating senior from the biology department, who, in the opinion of the department's faculty, has achieved distinction based on academic excellence in biology, personal integrity, and concern for others.

The Lackawanna County Lawyers' Auxiliary Scholarship: Established in 1982, this scholarship is annually presented to an outstanding graduating senior from Lackawanna County to provide scholarship assistance in the first year of law school. The scholarship is given directly by the Lawyers' Auxiliary, upon the recommendation of the University pre-law advisor.

The Murray Insurance Agency, Inc., Scholarship: This scholarship is for deserving local students with first consideration to residents of the city of Scranton.

The Charlotte W. Newcombe Foundation Scholarship: This scholarship provides aid for mature, second-career women students.

The O'Malley & Harris Pre-Law Scholarship: This scholarship, sponsored by the law firm, O'Malley & Harris, P.C., is based on the outcome of an annual competition among full-time undergraduates at both The University of Scranton and Marywood University. Entry information is available from either school's pre-law advisor.

The Christopher Jason Perfilio Memorial Scholarship: Christopher Perfilio passed away the summer before his senior year. His parents and older brother established this scholarship in his honor to assist philosophy and theology/ religious studies students, as well as students in the Special Jesuit Liberal Arts program, who have records of high academic achievement and demonstrate financial need.

The Bernard Shair Memorial Scholarship: This scholarship, established by family, friends, and colleagues of Dr. Shair through the Scranton Area Foundation, is presented annually to a graduating senior of The University of Scranton who has been enrolled in an accredited dental school.

The Armond and Betty Strutin Scholarship: This scholarship, created out of the generosity and commitment to The University of Scranton of Armond and Betty Strutin, is distributed each year to deserving students identified and designated by the Purple Club.

The Watterson-Gray Memorial Scholarship: Members of the Shiloh Baptist Church Family or any qualified students from the Scranton area who have demonstrated leadership are eligible to receive this scholarship. It was established in 2002 by Rosemary Gray Watterson, Ed.D.

Biennial Scholarship

The Corcoran-Condron Scholarship: Biennially the Society of the Friendly Sons of St. Patrick of Lackawanna County provides funds for a University of Scranton student or students to enjoy the benefits of studying for one or two semesters at a university in Ireland.

Endowed Chairs

The Alperin Chair in Business Administration: Established by an endowment, this academic chair was set in place in 1980 through the gifts of three Scranton businessmen, Joel, Irwin and Myer Alperin, and their families. The late Joel Mitchell Alperin was the originator and the principal sponsor of the chair and its endowment. Income from the Alperin brothers' gift is applied to the salary of a professor in The Kania School of Management.

The Kathryn and Bernard Hyland Chair in Biology: This endowed professorship was established by Bernard V. Hyland, M.D., '47 in honor of his parents. The professorship supports teaching and scholarship of a distinguished member of the biology faculty at the University.

The Chair in Judaic Studies: Income from an endowment established by alumni and friends of the University makes it possible for the University to invite, for short visits to Scranton, Judaic scholars from Israel or other parts of the world, for public lectures and meetings with students and faculty.

The Joseph T. and Frank M. McDonald Chair: Income from an endowment established by George and Dr. Herbert McDonald is used primarily to support the pre-law program, including support of the pre-law advisor, internship program, and advisory team. Income is also used to provide scholarship assistance to deserving students in pre-law majors.

The Pius X Teaching Chair of Theology: Established in 1976 by an anonymous gift and the assignment of a matching grant from the University's Commitment to Excellence capital cam-

paign, this chair is occupied by a priest, or jointly by a set of priests, of the Diocese of Scranton. The chairholders are nominated by the faculty of St. Pius X Seminary and approved by the faculty of the Department of Theology/ Religious Studies at the University.

Other Endowments

The NEH Endowment: This endowment was established through a challenge grant from the National Endowment for the Humanities. It supports the acquisition of materials for the humanities collection in the Weinberg Memorial Library.

The Jesuit Community Contribution: This gift of funds, returned to the University from payments made to Jesuits for their services, has enabled the University to offer many scholarships from its operating budget and has substantially aided the building program.

The Rose I. Kelly Award: A University of Scranton alumnus, Joseph Wineburgh, Ph.D., set in place an endowment to link the efforts of elementary and secondary school teachers to the achievements of college students. Each year, an outstanding student is selected by a committee appointed by the academic vice president. The Rose I. Kelly Award winner is asked to name a high school or elementary teacher who most influenced his or her pre-college academic preparation. Both the student and the teacher from pre-college days are honored at a campus ceremony. Dr. Wineburgh established the program to honor an elementary teacher, Rose I. Kelly, who greatly influenced his life.

The Rev. John J. Long, S.J., Fund: Contributions to this fund were made by friends of the Rev. John J. Long, S.J., president of the University, 1953 to 1963, on the occasion of his Golden Jubilee in the Society of Jesus and later as a memorial after his death in 1971. The fund is invested and the income therefrom is used for projects and programs concerned with the spiritual growth of students.

The Loyola Lecture: The Jesuit Community serving The University of Scranton has endowed a lecture program intended to bring distinguished Jesuit speakers to campus. Named in honor of St. Ignatius Loyola, founder of the Society of Jesus, this fund can also support visits by other scholars capable of assisting the University community to a better appreciation of its Jesuit heritage.

The Harry and Helen Mack Award Fund: This award was established through a unitrust by Mrs. Helen Mack and is restricted to The University of Scranton's Judaic Studies Program. It assists students and the community in learning about Jewish heritage and culture.

Life on Campus

The University of Scranton is a devoted to the Jesuit maxim of *cura personalis,* or care for each person and the whole person. The University recognizes the integral role that campus life plays in the overall education of a student. Because in so many ways learning does not stop at the classroom door, the University provides a range of activities and support services for leadership development, for reflection, for spiritual and personal enrichment, and simply for fun and recreation.

Student Services

We recognize that much of a student's education at The University of Scranton takes place outside the classroom. The Division of Student Affairs is committed to the integration of high-quality student learning with the development of the whole person. In addition, through resources, programs and collaborative efforts with the academic community as well as with all University divisions, it strives to form "men and women for others" in the Jesuit tradition, persons who are distinguished by a reflective and faith-filled vision for living that includes commitment to leadership and service in the world.

Efforts in the Division of Student Affairs are designed to help students fulfill their potential in the following areas: intellectual life, wellness, diversity, citizen-leadership, life planning, culture and commitment to growth.

Residence Life

The Residence Life system includes freshman and upper-class residences that provide secure and comfortable living spaces for study and personal development. Residence freshmen are assigned with their classmates to residence halls where they are supported in their academic programs, personal development and leadership opportunities by Residence Life Staff and Jesuit Counselors.

Upper-class students may select from a range of housing options that include traditional halls with single and double rooms, suite-style halls with semi-private baths, University houses and townhouse apartments. Upper-class students may also participate in the Gavigan Residential College and its Faculty Involvement Programs, or they can choose a Theme House that provides intense experiences in Spanish language and culture, education, technology, community service, wellness, or international culture. The University also provides limited apartment-style housing for graduate students.

The main goal of the residential experience is for each student to learn while living in this community environment. The process for this occurs through the active participation of the resident in his or her learning. Learning occurs best when students attempt to incorporate their in-class and extracurricular experiences. In turn, programs and services offered through the Office of Residence Life are aimed at involving students in their learning.

The individual residential communities are designed for active student participation in their community. A basic expectation is for each student to respect the rights of others. The privilege of living in a residence hall is accompanied by the responsibility of positive community building.

Residence Life stresses the importance of high achievement in the academic and community realm. In turn, it is expected that students make healthy decisions regarding substances, stress and time management, relationships, and the exploration of their faith.

(For additional information on room and board see "Tuition and Fees.")

The Office of Residence Life is located in Fr. Gallery House, 413 Quincy Ave., and is open Monday through Friday from 8:30 a.m. to 4:30 p.m. The phone number is (570) 941-6226. Additional information is available online at www.scranton.edu/residencelife.

Residence Life Policies and Guidelines

The University of Scranton requires all first- and second-year undergraduate students to live in campus housing. Exceptions to this policy are limited to students who reside with a parent, legal guardian or spouse; are 21 years of age or older; or present other documented extenuating circumstances. The Admissions Office will determine a student's residency status upon admission to the University.

The University provides in-room access to the campus communication network (television, computer and video, including instructional and commercial television) in all residence-hall rooms and telephone service to rooms in University houses at no additional charge. This service includes unlimited local calling and voice mail for each room, as well as discounted long-distance rates for those enrolled in the University's long-distance program. In addition, light in-room housekeeping, 24-hour maintenance and 24-hour security are provided.

Students residing in non-University, off-campus housing (within a one-mile aerial radius of campus) can also have access to campus communication services, including basic telephone service, voice mail/messaging service and long-distance service. For more information regarding these communication

services, contact the Office of Network Resources, St. Thomas Hall, Room 102, or call (570) 941-6181.

Contractual Obligations

Once enrolled in a room and/or board plan, the student is obligated to that plan for the remainder of the academic year including intersession.

Intersession

Resident students taking one or more classes during intersession must live in University housing and, if applicable, continue their meal-plan program if they were enrolled for room and/or board for the preceding fall semester. As noted above, additional fees do apply for meals. For reasons of safety and security, those not enrolled in classes during intersession are not permitted to reside in University housing. Student athletes, approved by the Office of Residence Life, may live in their rooms over intersession without taking classes.

Dining Services

Students have a choice of three cost-effective meal plans providing 19, 14 or 10 meals per week. The 19-meal plan provides three meals per day Monday through Friday, with brunch and dinner on Saturday and Sunday. The 14-meal plan provides any combination of 14 meals per week. The 10-meal plan offers students any combination of 10 meals per week. Meals are not served during vacation periods. All freshmen living in University housing must participate in the 19-meal plan during the entire freshman year. Upper-class residents living in Driscoll, Leahy, Redington and Gavigan Halls must participate in one of the three University meal plans. Meal plan participation is optional for upper-class residents of Mulberry Plaza, Madison Square and Linden Plaza and the University houses and for commuters and students living in private housing. Discounted meal tickets are available for guests and students wishing additional flexibility.

Commuter and Off-Campus Affairs

The University makes special efforts to ensure that commuting students and those who live off campus have access to its academic and co-curricular programs and services through the Office of Commuter and Off-Campus Affairs and especially through the Commuter and Off-Campus Association (COCA).

Commuter and off-campus programming assists students who live apart from the immediate campus community with their pursuit of Jesuit educational ideals emphasizing tolerance and support for those who are different, living a healthy life, participation in cultural events of every kind and exploration of their talents and desires for growth. For more information about the COCA, visit the Web at www.scranton.edu/COCA.

Career Services

Career Services helps students focus on career directions that are consistent with their unique talents, aspirations, and vision for living. Professional counselors can help students discover links between their personal traits and career options through individual counseling, workshops, and many other electronic and hard-copy resources available at the Career Services Office.

Students who are looking for related work experience while they are attending the University can benefit from the Career Experience Program and other internship-related services. As students near graduation they can receive training in resume and cover-letter writing and in interview and job search techniques. They are also able to participate in employer on-campus recruiting visits, employment fairs, and the annual Law School Fair.

The Career Services Office is located on the third floor of Elm Park Church and is open from 8:30 a.m. to 4:30 p.m. Monday through Friday. The phone number is (570) 941-7640. Additional information is available online at www.scranton.edu/careers.

Multicultural Affairs

The University of Scranton is increasingly a learning community that mirrors the diversity of the Kingdom of God. Each individual in this community is encouraged to embrace the richness of life associated with other cultures and people of diverse backgrounds. Growth in this area centers on personal understanding and a comfort with one's own cultural identity and tolerance and support for those who are different. The Director of Multicultural Affairs works closely with the administration,

faculty, staff and students, especially the United Colors student organization, to create an atmosphere that is conducive to learning for students of color and that offers all students a chance to grow in their understanding of and appreciation for people from different racial and ethnic backgrounds.

Jane Kopas Women's Center

The Jane Kopas Women's Center fosters a campus community in which women and men can live in a climate of mutual respect, understanding and equality, and where women are encouraged to reach their fullest potential. It provides a safe, comfortable and educational environment in which students, faculty, staff and members of the community can learn about the current and historical role of women in society and where they can explore issues of gender equality, diversity and social justice.

Both women and men are encouraged to attend the Center's co-curricular programs on gender and diversity issues and to use its resource center for courses, special projects or personal enrichment. Books, periodicals, videos, tapes, Internet access, and informational pamphlets are available for use, and the Center is also a place to learn about internship possibilities and conferences.

The Jane Kopas Women's Center's central location on the ground level of Fitch Hall and its comfortable atmosphere make it a place to get away from the daily stress of college life. There is always a need for work-study students and volunteers to serve the campus community. Interested students can call (570) 941-6194 or visit the Center from 10:00 a.m. to 6:00 p.m. Monday through Friday.

Judicial Affairs and Assessment

While participating in the life of the University community, it is hoped that students will learn and develop within the Jesuit educational tradition. Consistent with this tradition, the University community expects students to lead examined lives supportive of the common good. Thus, it is important for students to comply with University behavioral expectations designed to promote respect for others and observance of the tenets of the University Community Standards Code.

In coordinating the review of student misconduct cases, the Judicial Affairs Office helps students understand their behavioral responsibilities as members of the University community and ensures that the rights of accusing and accused students are upheld within a fair-minded judicial system. Also, this office can assist students experiencing conflict with others by referring them to a peer mediator program.

The staff associated with the Judicial Affairs Office also assists the Division of Student Affairs in the creation, implementation, and evaluation of a comprehensive assessment program. This assessment program addresses issues of student growth and development, departmental functioning and operation, and student perceptions of divisional effectiveness.

Counseling Center

Sometimes students have personal problems they may wish to discuss with a counselor. These may be related to the transition from high school to college or to decision-making regarding a variety of challenges that may occur for college students. These may also include such things as relationships, alcohol and other drug use, or family issues.

The Counseling Center is staffed by psychologists, certified counselors and a licensed social worker who are available to help students make the most they can out of their years at the University. Sometimes finding ways to talk about the stresses of life can make the difference between an average college experience and one that is exceptional.

The Center, located in McGurrin Hall, second floor, is open from 8:30 a.m. to 4:30 p.m. Monday through Friday. Later evening sessions may be available by appointment, and emergency crisis consultation is available on a 24-hour basis from September through May while classes are in session by contacting Public Safety 941-7777 to reach the counselor on-call. For Counseling Center appointments, students can call (570) 941-7620 or stop by the Center.

Student Health Services

Because maintaining good health is an essential part of success in college, Student Health Services is committed to helping students develop the knowledge, attitudes and skills they need for an optimal level of health and wellness.

Student Health Services offers confidential health care to all University students in an ambulatory clinic in the Roche Wellness Center. Care includes unlimited visits for nursing assessment, primary treatment for illness and injury, and appointments with physicians or a nurse practitioner. Cooperative relationships with community health-care providers such as laboratories, pharmacies, hospitals and medical specialists complement the care offered on campus.

The Student Health Service operates from 8:30 a.m. until 6:00 p.m. Monday through Thursday and from 8:30 a.m. until 4:30 p.m. on Friday. There are three full-service hospitals within just a few blocks of the University, that provide a full range of emergency and specialty services to students when necessary. Transportation to other health-care providers is provided through a special contractual agreement with an ambulance service that is available 24 hours a day, every day.

Because University fees cover all health-care services provided to students on campus, Student Health Services does no third-party billing. Care by community providers such as laboratory, X-ray, private physicians or specialists in the community, emergency-room visits or hospitals, however, are subject to private payment or insurance coverage. All students should have health insurance and should know how to access coverage if necessary. Information about an optional insurance plan for students who do not have insurance coverage through another plan is available through Student Health Services.

Center for Health Education and Wellness

In keeping with the Jesuit tradition of educating the whole person, the Center for Health Education and Wellness encourages healthy life-style choices by providing educational programs and referrals for all students. Examples of past offerings include Smoking Cessation Workshops, Professional Development Series, Care of an Intoxicated Friend Seminars and Nutritional Seminars. Current offerings are posted on campus each semester.

The Center for Health Education and Wellness also is home to the University's Peer Education programs. Peer Educators volunteer their time to provide formal educational presentations as well as individual referral assistance to their fellow students on issues related to alcohol and other drug use, sexual assault and HIV/AIDS. These "students helping students" gain valuable leadership experience, sharpen their communication skills and deepen their own understanding of these critical health issues. Students interested in applying to be a Peer Educator are encouraged to contact the Center for Health Education and Wellness or a current Peer Educator for further information.

The Center for Health Education and Wellness, at the corner of Mulberry Street and North Webster Avenue, is open from 8:30 a.m. until 4:30 p.m. Monday through Friday and evenings by appointment. For appointments, stop by the Center for Health Education and Wellness or call (570) 941-4253.

Outside the Classroom

Student Activities and Orientation

This office complements the academic program of studies as part of the University's overall educational experience through development of, exposure to, and participation in social, cultural, intellectual, recreational and governance programs. It encourages such things as positive and realistic self-appraisal, intellectual development, making appropriate personal and occupational choices, clarification of values, the ability to relate meaningfully with others, the capacity to engage in a personally satisfying and effective style of living, the capacity to appreciate cultural and ethnic differences, and the capacity to work independently and interdependently.

The Office of Student Activities and Orientation is located on the second floor of the Gunster Student Center and is open Monday through Friday from 8:30 a.m. to 4:30 p.m. (570-941-6233).

New Student Orientation

Orientation helps all new students, freshman and transfer, with their transition to life at the University. The program is the link between the admissions process and students' arrival at the University for their first semester. The emphasis is on scheduling, academic and social integration and providing a natural connection to the strong sense of community at the University.

Student Government

Student Government is an organization with the task of maintaining and improving all aspects of student life to provide a productive academic and social environment for the student body. Its familiar faces and widespread involvement give the campus life and energy. Its leadership consists of elected student officers.

Clubs and Organizations

The University of Scranton encourages students to participate in many clubs, activities and organizations provided through the Office of Student Activities and Orientation. These clubs and organizations encourage students to become immersed in the campus community and their self-directed activities allow members to develop their leadership skills while meeting the goals of the club and the needs of its members.

Accounting Club
Advertising Club
American College of Health Care
American Production Inventory
American Psychological Society Student Caucus
Association for Childhood Education International
Biology Club
Bowling Club
Business Club
Chemistry Club
College Democrats
College Republicans
Communications Club
Computer Science Club
Council for Exceptional Children
Criminal Justice Club
Drill Team/Color Guard
Environmentally Concerned Organization
Habitat for Humanity
Health Administration Club
Health Administration Association
Health Professions Organization
Horticulture Club
Human Resources Association
Human Service Association
India Club
Institute of Electrical & Electronic Engineers
International Students Association
Irish Society
Long Term Care Association
Marketing Club
Men's Volleyball
Nursing Association
Philosophy Forum
Physical Therapy Club
Pre-Law Society
Political Affairs Society
Psychology Club
Public Relations Student Society
Rangers Club
Royal Battalion
Royal Dance Ensemble
Royal Riders
Royals Historical Society
Ski Club
Social Science Club
Society for Advancement of Management
Student Education Association
Student Occupational Therapy Club
Students for Life
The New Agenda
United Colors
University Singers
Veterans Club
Volunteer Community Outreach Efforts
Women's Business Honor Society
Women's Crew
Women's Rugby

A complete list of campus clubs and organizations is available on the student activities homepage on the Web at www.scranton.edu/studentlife.

Collegiate Volunteers

Collegiate Volunteers is a cooperative volunteer placement program between The University of Scranton and Marywood University. Students are placed according to their interests and in response to community need. Student initiated activities are greatly encouraged.

The program combines service and education. Community service exposes students to many important but often hidden realities in the world (e.g. the enormity and complexity of needs and remedies, and the great gifts that the needy bestow on those who share their world). In addition, volunteers, both in activity and reflection upon activity, learn about themselves.

Above even these goals is the obligation, which the schools and the students share, to respond to needs according to resources and other responsibilities.

More information is available online at www.scranton.edu/volunteers.

Intercollegiate Athletics

The University is a Division III member of the National Collegiate Athletic Association (NCAA), the Middle Atlantic States Collegiate Athletic Conference (MAC), and Eastern College Athleric Conference (ECAC). The Athletics Office is located in the John Long Center and is open Monday through Friday from 8:30 a.m. to 4:30 p.m. Additional information is available online at www.scranton.edu/athletics.

Varsity Sports –

Men's	***Women's***
Baseball	Basketball
Basketball	Cross Country
Cross Country	Field Hockey
Golf	Lacrosse
Ice Hockey	Soccer
Lacrosse	Softball
Soccer	Swimming
Swimming	Tennis
Tennis	Volleyball
Wrestling	

The University of Scranton varsity athletic program has enjoyed a tradition of success. In 2000, Joe Fent, a four-time conference champion, earned All-America honors for the second time, while the men's and women's basketball teams and the women's soccer teams participated in the NCAA Division III national championship tournaments. Other notable achievements include two NCAA titles and four Final Four appearances for men's basketball and an NCAA championship and seven Final Four berths for the women's team – the latest at Danbury, Connecticut, in 2000. The men's soccer team has a record four consecutive NCAA Final Four appearances.

In the Middle Atlantic Conference, Scranton has won 38 women's championships and 30 men's, for a combined total of 68 as of March 2003. The men's and women's soccer teams have won 19 MAC championships including a streak of seven straight from 1990 to 1996 for the women's team. In basketball, the men have won 16 conference titles, and the women's team has won 13.

The varsity program has produced many of the NCAA Division III's finest athletes, including 48 All-Americans. The women's basketball team has had 15 All-Americans since 1980, including Kelly Halpin in 1998, 1999 and 2000. Deanna Kyle (1985) and Shelley Parks (1987) were the National Players of the Year. Men's basketball has also had 13 All-Americans, with two in 1993. Men's soccer has produced 11 All-Americans, followed by women's soccer with ten, including Sara Suchoski, a freshman, who earned first team honors this past season..

The University's programs have produced 31 National Academic All-Americans since 1981. The University is a consistent leader in the Middle Atlantic Conference in the number of academic awards. During the 2000-01 academic year, Nicole Bayman, a member of the women's soccer team, and Sarah Gazdalski, a member of the Lady Royals' women's swim team, were named first-team Academic All-Americans by the College Sports Information Directors of America; Joe Fent earned second-team honors. Bayman and Fent have also been awarded prestigious NCAA post-graduate scholarships.

Recreational Sports

Housed in the Byron Recreational Complex, the Recreational Sports Department seeks to provide a comprehensive program of sports activities designed to appeal to the diverse needs and interests of the University community. Intramural leagues begin approximately the third week of each semester and include basketball, volleyball, walleyball, flag football, racquetball, tennis, soccer, whiffleball, badminton, softball and ultimate frisbee. Special one-day events are held on weekends throughout the year and include skiing, snow tubing, golf, table tennis, beach volleyball, and hiking.

In addition to structured programs, the Byron Complex also offers many opportunities for individual recreation. Cardiovascular training equipment (treadmills, cross-trainers, steppers, rowers, bikes and other equipment) are located on the second level in the Murray Royals Fitness Center. Aerobics classes are conducted on a weekly schedule and can be attended on a drop-in basis. The recreation complex also houses three multi-purpose courts, four racquetball courts, a six-lane swimming pool, a dance-aerobics room, weight room, saunas, and steam rooms. In addition to indoor facilities, there is an outdoor basketball court, turfed utility field, and

sand volleyball court located directly behind the recreation complex. A variety of recreational equipment may be obtained in the recreation office with a valid Royal card. Whether students are looking for a competitive game of basketball, a high-impact aerobics class, or just a leisurely swim in the pool, the Recreational Sports Department offers them all of these opportunities.

The recreation center is open during regular semesters from 6:30 a.m. through midnight, Monday through Thursday, and Friday from 6:30 a.m. to 9:00 p.m., Saturday from noon to 9:00 p.m. and Sunday from noon to midnight, (570) 941-6203.

Publications

The University offers a wide choice of journalism opportunities.

The Aquinas is the weekly, award-winning campus newspaper, and positions are available to all full-time undergraduate students.

Esprit is the award-winning campus literary journal.

History students have the opportunity to have their articles published in *Retrospect,* which is a student-faculty historical journal.

The yearbook, *Windhover,* is produced annually by students.

Performance Music

The University of Scranton Bands, Choirs and String Ensembles offer high quality instrumental and choral performing ensemble opportunities in a variety of formats ranging from very large ensembles to small-ensemble and solo performing opportunities. In the finest liberal arts tradition, participation is open to any and all interested university students (as well as faculty, staff and administration) with no individual audition requirement or enrollment or membership fee.

The programs include an annual World Premiere Composition Series performance, the only series of its kind in the nation, which has received honor and acclaim from artists throughout the world. Currently in its 20th year, the series has provided our students with opportunities to work and interact with internationally renowned composers and conductors, and has made significant contributions to the wind and choral repertoires.

Hundreds of students participate in the ensembles every year, and they are achieving their performance goals in the musical ensemble of their choice. For more information on any of our Performance Music offerings, please visit us online at www.scranton.edu/music, or contact Cheryl Y. Boga, Director of Performance Music, at music@scranton.edu or (570) 941-7624.

The University of Scranton Performing Arts series presents concert performances by outstanding and renowned musicians representing a variety of musical genres, and closely coordinates programming with the Bands, Choirs and String Ensembles to offer special masterclasses, workshops and lectures by our visiting artists.

All performances are free of charge and open to the public, and most take place in the magnificently restored concert hall of the Houlihan-McLean Center on campus.

Our tradition of guest artists and clinicians has brought to our student musicians, our campus and our community the joyful experience of performing with and hearing a long list of musical masters, among them Seneca Black; Wycliffe Gordon; Victor Goines; Bridgett Hooks; T. Terry James; Robert Kapilow; Wynton Marsalis; Sam Pilafian; Eric Reed; Joshua Rosenblum; Loren Schoenberg; Robert Starer; Melissa Thorburn; Lawrence Wolfe; George Young; members of the New York, Philadelphia, Boston, Minnesota and Dallas Symphony Orchestras and The Lincoln Center Jazz Orchestra; "Travelin' Light"; members of the Empire Brass Quintet; and recently deceased composer-in-residence Vaclav Nelhybel, whose long and productive relationship with the University continues to be honored through close cooperation between the University and the Nelhybel Estate with the establishment of The Nelhybel Collection.

Other Extracurricular Activities

Debate

The tradition of debate in Jesuit colleges and high schools is also strong at The University of Scranton. The Noel Chabanel Council of Debate gives interested students an opportunity to compete in debate and speech events on the intercollegiate level.

Radio

More than 60 students each year gain valuable experience while operating WUSR, 99.5 FM, which is broadcast at 300 watts with a coverage area of 700 square miles. The broadcast region of the Scranton/Wilkes-Barre metropolitan area has an audience of over 250,000. The format is eclectic with world, classical, jazz, urban and alternative music. In keeping with the University's mission the station produces public affairs programming and provides the community with an alternative to commercial radio. Students are encouraged to become involved with all aspects of the station, from on-air positions to management.

Television

The Royal College Television Network gives students the opportunity for hands-on experience in television production. Students take the initiative in producing, directing, writing, shooting and editing television programs to express their creativity. These programs range from comedy, sports and film reviews, to news and public affairs. Programs produced by students appear on the campus cable television system.

Theatre

The tradition of theatre and dramatics in Jesuit colleges goes back four-hundred years. The University of Scranton has played a vital part in that tradition as evidenced by the many theatre professionals who were undergraduates of the University: the late Jason Miller (Pulitzer-Prize winning playwright/Academy Award nominee); Walter Bobbie (Broadway actor and Tony Award winning director), and Stan Wojewodski Jr. (former Dean of the Yale School of Drama), to name just a few.

Today, the University Players produce a main-stage season along with a festival of student-written plays, and a workshop devoted to new student directors. Over 150 students, from virtually every major, participate on and off stage in the productions each year. The theatre program in the McDade Center for Literary and Performing Arts, a state-of-the-art facility complete with a 300-seat main stage, flexible studio theatre, scenery and costume shops, and additional support spaces.

The University Players have historically been host to many prominent guest artists. Oscar-winning British actress Glenda Jackson conducted an acting workshop, Oscar-winning actor the late Sir Richard Harris directed a production of Julius Caesar in 1988, and, in 1998, Emmy-award winner Dennis Size created the set and lighting designs for the players' production of *Lysistrata*.

Participation in the Players is open to all students, regardless of major. Interested students should contact the Director of Theatre in the McDade Center, Room 103.

Campus Ministry

As a Catholic University, The University of Scranton is dedicated to promoting the faith of its students, faculty and staff. Campus Ministry does this through a variety of programs offered to all members of the University community. Mass for Sunday is celebrated on Saturday at 4:30 p.m. and on Sunday at 11:00 a.m., 7:00 p.m. and 9:30 p.m. in Madonna della Strada Chapel. Weekday masses are at 12:05 p.m. and 4:40 p.m. in St. Ignatius Chapel, located in St. Thomas Hall at the heart of the campus. The University also gathers as a community for special liturgical celebrations to mark the beginning of the academic year, graduation and other important events.

The Campus Ministry staff offers a variety of weekend retreats at the University's beautiful lakeside Conference and Retreat Center, 20 minutes from campus. These include lively peer-led student retreats, silent retreats based on the *Spiritual Exercises of St. Ignatius,* and retreats designed for those who have never been on a retreat and would like to try a variety of spiritual activities. Some retreats are directed to first-year students, others to upperclass students. On-campus programs address the spiritual needs of students through religious education, faith-sharing groups, retreat renewals and evening of recollection, and social justice presentations. Campus ministers are also available for spiritual direction and counseling. The Campus Ministry office, located in the first floor of the Gunster Student Center, has extensive information about all these programs.

The Campus

The University's 58-acre campus is located in the heart of Scranton, a community of 80,000 within a greater metropolitan area of 750,000 people. Since 1984, the University has built 25 new buildings and renovated 24 others.

The 426,347-volume *Harry and Jeanette Weinberg Memorial Library* at the center of campus includes a large study area open 24 hours a day with Internet connectivity to the world. *Loyola Hall of Science* and *St. Thomas Hall* have highly specialized laboratories and equipment for the study of physics, electrical engineering, computing sciences, chemistry, biology and molecular biology. There is also a fully equipped television studio with editing facilities in the *Communications Wing of St. Thomas Hall,* along with the broadcast studios of WUSR-FM.

The *John J. Long, S.J., Center* and the adjoining *William J. Byron, S.J., Recreation Complex* house the departments of Athletics and Exercise Science and Sport. They also have facilities for intercollegiate and intramural basketball, wrestling, handball, tennis, racquetball, volleyball and swimming. *Fitzpatrick Field* is home to men's and women's soccer, lacrosse, and field-hockey teams. Offering lights and an artificial turf surface, it is also used for intramural and club sports.

Thirteen traditional residence halls, primarily for freshmen, are centered on terraced quadrangles at the core of the campus. *Francis E. Redington Hall* and *John R. Gavigan Hall* provide housing for upper-class students and the University also maintains a series of houses and apartment buildings in the vicinity of campus, some of which are organized around academic interests. In all, there are more than 30 housing options for students, who are guaranteed University housing for four years.

The most recent additions to University housing are *Mulberry Plaza* and *Madison Square.* Mulberry Plaza is a complex of four apartment buildings. Each unit contains three- and five-bedroom apartments, and a five-occupant, two-story townhouse unit. Madison Square is a three-building complex offering two-, three- and four-bedroom apartments. All units contain kitchens, combined living and dining areas, one or two bathrooms, and bedrooms.

Performance and rehearsal space for the University Bands and Choirs is in the *Houlihan-McLean Center.* The *McDade Center for Literary and Performing Arts* includes a "black box" studio theatre and a 300-seat main theater, classrooms, a writing laboratory, and offices for the English Department. The Eagen Auditorium in the *Gunster Memorial Student Center* is used for performances, lectures and formal and informal University events.

McGurrin Hall houses The Panuska College of Professional Studies, and contains classrooms, laboratories, an academic advising center, and offices for the departments of Counseling and Human Services, Education, Health Administration, Human Resources, and Nursing. Physical Therapy and Occupational Therapy classrooms and laboratories are in adjacent *Leahy Hall.*

Brennan Hall is our newest academic building. This 71,000-square-foot facility located in the center of campus provides offices, classrooms and support facilities for the Kania School of Management. Also in Brennan Hall is a 148-seat auditorium and seminar rooms. The Executive Center on the fifth floor of Brennan includes conference and meeting rooms that are technologically equipped, as well as a dining and kitchen area.

The *Conference and Retreat Center* is located 15 miles north of the campus on Chapman Lake. It offers two facilities for retreats and conferences, one of which offers overnight accommodations for 32.

Other notable campus buildings include *The Estate,* former residence of the Scranton family; *Campion Hall,* built by the Society of Jesus for its members in Scranton; the *Center for Eastern Christian Studies* with its 150,000-volume library, rare-book collection and Byzantine Rite Chapel; *Kathryn and Bernard Hyland Hall,* which houses classrooms and the University Bookstore; and recently renovated *O'Hara Hall,* which is home to the Graduate School, Dexter Hanley College, the Center for Continuing Education, academic departments and administrative offices.

Academics

The University's academic programs for undergraduates are offered through three day schools, The College of Arts and Sciences, The Kania School of Management, and The Panuska College of Professional Studies; and through its division for non-traditional students, Dexter Hanley College. The schools share a common General Education program and offer baccalaureate degrees in 57 fields.

Academic Honor Societies

Those National Honor Societies which are represented in The University of Scranton are listed below in order of the foundation of the local chapters.

Alpha Sigma Nu*

The National Jesuit Honor Society was founded in 1915 with chapters in 28 Jesuit universities throughout the United States. The Scranton chapter was founded in 1943, the oldest Honor Society in the University. It is the only Honor Society open to students and faculty in all disciplines and all colleges of the University. Its admission standards are the most rigorous. The Greek letters signify *adelphotes skolastikon nikephoron* – brotherhood of honor students. Juniors and seniors who have distinguished themselves in scholarship, loyalty and service are eligible for membership. Appointment is made by the president of the University on the recommendation of the moderator and nomination by chapter members of the Society. The Society annually presents the Alpha Sigma Nu University award for teaching.

Phi Alpha Theta*

International Honor Society in history founded in 1921. Basic requirements: 12 credits in history; grade point average of 3.33 in history and overall ranking in top 35% of class. The Mu Rho chapter was established at the University in 1967.

Sigma Pi Sigma*

National Honor Society in physics for undergraduate and graduate students, founded in 1921. Its chapters are restricted to colleges and universities of recognized standing which offer a strong physics major. The University's chapter was founded in February 1969.

Omicron Delta Epsilon*

National Honor Society in economics. Basic requirements: 12 credit hours in economics with an overall grade point average of 3.0 and a 3.0 average in economics. The University's Xi chapter of Pennsylvania was founded in May 1969.

Psi Chi*

National Honor Society in psychology founded in 1931. This organization has chapters in 974 colleges and universities in all 50 states. The University's chapter was installed in May 1969. Minimum qualifications include a major or minor in psychology, rank in the top 35th percentile in general scholarship, and superior scholarship in psychology.

Phi Delta Kappa

International professional fraternity for men and women in education. Membership is limited to graduate students and teachers. The University's chapter was founded in 1970.

Pi Gamma Mu*

International Honor Society in social science. Founded in 1924 to improve scholarship in the social sciences and to encourage interdisciplinary study. Basic requirements: at least 60 hours of academic work, an overall grade point average of at least 3.25, with at least 21 hours in the disciplines of economics, human services, psychology, sociology, political science or history with a grade point average of at least 3.33. The University's chapter was founded in 1971.

Alpha Sigma Lambda

National Honor Society to encourage scholarship and leadership among adult students in continuing higher education. The Alpha Upsilon chapter was installed at the University in 1972.

Eta Sigma Phi

National Honor Society for students of classical languages. The University's Epsilon Gamma chapter was founded in November 1972.

Pi Mu Epsilon

National Honor Society for mathematics majors in junior or senior year with a grade point average of 3.0 and a 3.0 average in mathematics. The University's Mu chapter was installed in February 1973.

* *Member of the Association of College Honor Societies.*

Alpha Mu Gamma

National Honor Society for students of foreign languages. Founded in 1931. The Greek letters signify *amphi mouse glosson:* for the muse of languages. The University's chapter of Theta Iota was installed in May 1973.

Delta Sigma Rho–Tau Kappa Alpha*

National Honor Society in forensics. Founded in 1963 through merger of societies founded in 1906 and 1908 respectively. The University's chapter was installed in 1975.

Phi Lambda Upsilon

National Honorary Chemical Society established in 1899. The University's Beta Kappa chapter, one of 60 chapters nationwide, was installed in October 1975. For students with 24 credits in chemistry and a 3.0 grade point average.

Alpha Epsilon Delta*

The National Premedical Honor Society founded in 1926. The University's Iota chapter was installed in May 1976.

Sigma Xi

International Honor Society in scientific research founded in 1886. The University's chapter was chartered in 1968 and has been authorized since 1979 to induct as associate members undergraduate or graduate students showing outstanding promise in original research.

Theta Alpha Kappa*

National Honor Society in theology and religious studies founded in 1976 at Manhattan College. The University's Alpha Nu chapter was installed on April 4, 1980. Membership requires 12 credits in theology with a 3.5 grade point average.

Sigma Tau Delta*

National Honor Society in English founded in 1924. This organization is for students who major or minor in English with a grade point average of 3.5 in English and 3.4 overall. The University's Mu Omicron chapter first met on April 30, 1980.

Alpha Epsilon Alpha

An honor society founded on April 30, 1980, at The University of Scranton to recognize students who excel in the field of communications. For communication majors with a 3.5 grade point average.

Alpha Kappa Delta*

International Honor Society for Sociology students founded in 1920. Requirements include 18 credits in sociology with a grade point average of 3.0 overall. The University's Upsilon chapter was founded on May 8, 1980.

Pi Sigma Alpha*

National Honor Society in political science founded in 1920. The Kappa Iota chapter at the University was installed on May 9, 1980. Membership limited to students with at least 10 credits in Political Science, a grade point average of at least 3.4 in these courses, and overall rank in the upper third of the class.

Alpha Phi Sigma*

The National Criminal Justice Honor Society founded in 1942. The University's Epsilon Zeta chapter was installed in May 1982. Basic requirements: 18 credits in criminal justice; an overall grade point average of 3.2; a 3.2 grade point average in criminal justice.

Phi Sigma Tau*

National Honor Society for students of philosophy. The University's Tau chapter was installed in May 1982.

Omega Beta Sigma

The Business Honor Society for women founded at The University of Scranton in 1982. Basic requirements: at least sophomore standing, Business as a major or minor and a grade point average of 3.25.

Upsilon Pi Epsilon

National Computer Science Honor Society. The University's Gamma chapter was chartered in the spring of 1985.

Sigma Theta Tau*

International Honor Society of Nursing was founded in 1922 and is a prestigious

* *Member of the Association of College Honor Societies.*

organization of nurse leaders, scholars and researchers. Requirements: completion of one half of the curriculum, demonstrated ability in nursing, a grade point average of 3.0 and rank in the upper one-third of the class. The University's Iota Omega Chapter was chartered in April 1988.

Kappa Delta Pi

The International Honor Society for education established in 1911, the Sigma Chi chapter was installed here at The University of Scranton in 1992. It joins over 500 chapters from around the world in fidelity to four cherished ideals: Humanity, Science, Service and Toil.

Beta Beta Beta

National Honor Society for biology founded in 1922. The University's chapter, established in 1994, is one of 372 chapters nationwide. The society encourages undergraduate biological research through presentations at conventions, publication in the journal BIOS, and research/travel grants. All undergraduate students interested in biology may join as associate members. A regular member must be a junior or senior with 3.0 grade point average in biology and having completed at least three biology courses (one upper level) and in good academic standing at the University.

Sigma Phi Omega

The National Honor Society in gerontology. Founded in 1980, its purpose is to recognize those students who excel in gerontology as well as professional aging-service personnel. The University's Gamma Epsilon chapter was established in April 1997. Membership is open to students who have at least 18 credits completed in gerontology/aging studies with a grade point average of 3.3.

Beta Gamma Sigma*

Beta Gamma Sigma is the only business honor society recognized by the AACSB, the International Association for Management Education. Basic requirements: ranking in the top 10% of the class with a major in business and management programs. The University's chapter of Beta Gamma Sigma was chartered in spring 1997.

Lambda Pi Eta*

The National Honor Society for communication majors founded in 1985 to honor and encourage high levels of scholarship and leadership in the field of communications. The University chapter was installed in 1999. Membership requires junior-level status, at least 12 credits and a grade point average of 3.25 in communication studies, and a cumulative grade point average of 3.0.

Alpha Lambda Delta

The National Honor Society of Freshmen, Alpha Lambda Delta was founded in 1924 to honor excellent academic achievement by students in the first year of study. The Richard H. Passon Chapter of the Society was installed at the University on March 24, 2001. Membership requires enrollment as a full-time student in a degree program, and a grade point average of 3.5 or above at the end of the first semester of the freshman year.

Academic Support Services

Harry and Jeanette Weinberg Memorial Library

Opened in 1992, the holdings of this 80,000-square-foot, five-story building include 443,144 volumes, 1,750 print periodical subscriptions, over 13,000 full-text electronic journals, and 510,360 microform pieces. The Library conducts an extensive user-education program to orient and instruct students in resources and research techniques. The facility includes the following special features:

- group-study rooms and quiet study areas;
- a 24-hour study room (Pro Deo Room) with computer lab and Java City Coffee Bar;
- fifth-floor reading room (Scranton Heritage Room) overlooking the campus and community;
- University Archives and Special Collections, which houses University historical records, rare books, faculty publications and other special collections; and

** Member of the Association of College Honor Societies.*

- a Media Resources Collection (first floor) that holds 13,075 non-print items, including videocassettes, records, films and filmstrips.

Databases and Online Catalogs

The library offers over 110 databases via the World Wide Web. Full-text, online resources include: Lexis-Nexis, ProQuest, Project Muse, IDEAL, Annual Reviews, JSTOR, Emerald Library, Global Access, Newsbank, OED, Past Masters, Contemporary Women's Issues, ECO, WilsonWeb and FirstSearch. A proxy server gives users remote access to these databases. In addition to the Library's own Online Public Catalog, users can search the Northeast Pennsylvania Library Network (NPLN), a virtual catalog of local libraries, Jesuit libraries, and the Pennsylvania Academic Libraries Consortium Inc. (PALCI), a direct borrowing program. With PALCI members, the Library also shares 1,900 full-text books that users can read or borrow online. Some required readings for courses are available through ERES, an electronic reserve reading database over the Internet.

Library Technology

There are 80 Internet workstations in the Library, including 33 machines available 24 hours a day, seven days a week in the Pro Deo Room. Wireless connection to the Internet is available throughout the building via laptops with cards. Twelve laptops are available at the circulation desk. In addition to these machines, students may use ResNet ports to plug personal laptops into the network in the first floor Pro Deo Room and group study rooms. "Ask-a-Librarian" enables users to submit questions via the Internet.

Library Hours

Library hours are posted on campus, on the Internet, and on a recording which can be heard at (570) 941-7525. It is open almost 100 hours per week, with extended hours during exam periods.

For information about the Library, its services, and resources, see the Weinberg Memorial Library homepage on the World Wide Web (www.scranton.edu/library) or select the Library from the University's homepage (www.scranton.edu).

Academic Advising Centers

The College of Arts and Sciences Academic Advising Center

The Academic Advising Center, located in St. Thomas Hall 309, serves all freshmen in The College of Arts and Sciences. Staffed by professional advisors and by faculty advisors from a wide variety of disciplines, the Academic Advising Center offers a comprehensive program of academic advising throughout the freshman year. In addition to individual advising, the Academic Advising Center also offers specialized Freshman Seminars for students in the CAS common curriculum. Advisors are available to students from 8:30 a.m. to 4:30 p.m. Monday through Friday. They provide assistance with orientation, registration, drop-add, general education course selection, declaration and change of major, and assessment of academic performance and goals.

The Panuska College of Professional Studies Academic Advising Center

The Academic Advising Center, located on the first floor of McGurrin Hall, serves all students in The Panuska College. Staff are available during the academic year, Monday through Friday from 8:30 a.m. to 4:30 p.m., to provide individual assistance with academic advising, registration, assessment of academic performance and career goals. The Center also works closely with other campus resources to provide comprehensive advisement opportunities. Faculty mentors are available to students within their academic departments.

The Kania School of Management Academic Advising Center

The Academic Advising Center, located in Brennan Hall Suite 206, serves all students in The Kania School of Management. Staff advisors are available from 8:30 a.m. to 4:30 p.m., Monday through Friday, to provide assistance with registration, major and general-education course selection, and assessment of academic performance and goals. The Advising Center works closely with other campus resources to provide comprehensive advising services.

The Center for Teaching and Learning Excellence

The Center for Teaching and Learning Excellence is located in St. Thomas Hall. It was established to help students accomplish their academic goals at the University. The center provides services to supplement those offered in the classroom and is staffed by professional staff and peer tutors. Academic services are available for diagnosed learning-disabled students. A Reading Specialist is also on staff for testing and consultation. Assistance is available on a drop-in or referral basis. Services are provided to students with learning disabilities in compliance with Section 504 of the Rehabilitation Act. The Center for Teaching and Learning Excellence is open Monday through Thursday, 8:30 a.m. to 7:00 p.m., and Friday from 8:30 a.m. to 4:30 p.m. A writing center is available to students seeking assistance with papers. It is open Monday through Friday from 10:00 a.m. to 6:00 p.m.

Office of the Registrar

As part of the Academic Affairs Division, the Office of the Registrar supports the educational mission of the University by connecting students to the faculty, curriculum and classroom via the course scheduling and registration processes. The Registrar also documents and validates the product of this dynamic connection in the form of schedules, rosters, grades, evaluations, transcripts and diplomas.

The Registrar's office serves students on a daily basis by answering questions, issuing transcripts, certifying enrollment status, and distributing forms and schedules. In addition, students may obtain information about academic policies and procedures, and important dates and deadlines.

The office promulgates the master schedule of courses twice each year in October and March, conducts registration, collects and records grades, certifies degree eligibility and manages several aspects of commencement.

Course registration for returning students is conducted in April for the summer and fall, and in November for spring and intersession via the University Information System (UIS) on the World Wide Web. Located at https://uis.uofs.edu, the system provides secure links to academic records, registration options, student class schedules, address information, tuition accounts and financial-aid information. Mid-term and final grades are also available on UIS.

Located in St. Thomas Hall 301, the Office of the Registrar is open Monday to Friday, 8:30 a.m. to 4:30 p.m. For more information please call (570) 941-7221 or e-mail registrar@scranton.edu. Additional information and resources (including the academic calendar, course schedules and student grade point average calculator) are available online at www.scranton.edu/registrar.

Academic Policies and Regulations

Academic Code of Honesty

Students have responsibility for governing their own conduct i\n compliance with the Academic Code of Honesty, which addresses behavioral integrity in the academic work of the University. Conduct that violates the Code includes plagiarism, duplicate submission of the same work, collusion, providing false information, unauthorized use of computers, theft and destruction of property, and unauthorized possession of tests and other materials. Steps taken in response to suspected violations may include a discussion with the instructor, an informal meeting with the dean of the college and a hearing before the Academic Dishonesty Hearing Board. Students who are found to have violated the Code will ordinarily be assigned the grade F by the instructor and may face other sanctions. The complete Academic Code of Honesty is available in the deans' offices, in the Student Handbook and on the Web at www.scranton.edu/student_handbook.

General Regulations

Ordinarily, all entering students – both freshmen and transfer students – are held to the requirements in the catalog of the year in which they enter.

The University reserves the right to change any of the policies, rules, and regulations in this catalog. All such changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who are already matriculated in the University. Curricular changes, however, shall not become effective

until published in the catalog unless specifically approved for an earlier implementation date by the appropriate body. If a change is approved for implementation prior to its publication in a catalog, the appropriate school, department, or program shall inform all students affected by the change. Students can appeal issues related to the application of policies, rules, and requirements, including changes thereto, to the dean of their college.

The University reserves the right to take appropriate disciplinary action in the case of any student who conducts himself or herself in a manner that is contrary to the standards of the University. These standards (particularly in the area of academic integrity) are given clear expression in the University's Academic Code of Honesty published in the faculty and student handbooks of the University. The University also reserves the right to modify admissions requirements, to change tuition and fee charges, and to change the semester schedule of courses.

Degree Requirements

All students beginning the first term of their undergraduate degree/certificate program (matriculating) at The University of Scranton in the 2003-04 academic year are thereafter governed by the curricular policies stated in this catalog. Requirements for majors are those in effect when a major is formally declared and approved. First-year students admitted in 2003-04 will follow the general education requirements of this catalog.

A degree represents the successful completion of the entire undergraduate curriculum, including general education requirements, cognates, basic skills courses and electives, as well as major requirements. Students graduating with multiple majors receive a single degree.

In order to earn a bachelor's degree from The University of Scranton students must:

- complete all the courses prescribed in the curriculum table of the major;
- complete at least 63 credits at The University of Scranton, including the last 30 credits of their degree program;
- earn a minimum 2.00 overall grade point average; and
- remove all failures in required courses. (See "Graduation Procedures and Commencement" for additional information.)

In cases where students do not maintain a 2.00 grade point average in required courses, their respective dean may take one of the following actions:

- place the student in a goal attainment semester for students determined to raise the grade point average and remain in the major;
- place the student in an exploratory semester for students wanting to explore possible new majors; or
- grant permission to change to a new major if the department of the new major approves the requested change.

In all cases, students must either meet the standard in the original major or change to a new major within two semesters (in the case of Dexter Hanley College, within 30 credits). Students who remain in the "Goal Attainment" and/or "Exploratory" semester programs for more than two semesters will be subject to dismissal by their dean.

Course Numbering System

Courses appearing in this catalog are numbered according to the system described below. The first digit of any course number indicates the level of the course; the second and third digits specify categories of courses. Levels at which courses are offered include the following:

100-199	Introductory courses
200-299	Lower division courses
300-399	Upper division courses
400-499	Advanced undergraduate courses
500 and above	Graduate courses

In cases where no specific prerequisite is listed in the course description, courses at the 300 or 400 level assume junior or senior standing and appropriate background in the discipline of the course.

Categories in which courses are offered are indicated according to the following system:

___00 - ___09	General-education courses
___10 - ___39	Courses that may apply either to major or general-education requirements
___40 - ___79	Courses available for major (also minor and required cognate) credit

___80 - ___81	Practicum, Internship or Co-op courses
___82 - ___83	Independent study
___84	Special topics
___85 - ___89	Honors courses
___90 - ___91	Seminars
___92	Service Learning
___93 - ___94	Research
___95 - ___96	Travel courses
___498 -__ 499	Thesis

Labs are indicated by an (L) following the number of the corresponding lecture courses. Courses in the Special Jesuit Liberal Arts Program are indicated by a (J) following the course number; those in the Honors Program are indicated by an (H) following the course number.

Course Schedule Changes

Dropping and Adding Courses

Students may add courses anytime between the initial registration period and the fifth class-day from the start of a semester. Students who wish to drop one or more courses, but who plan to continue attendance in at least one other course during the term, need to secure their dean's permission. A dropped course is not reflected on a student's transcript. The last day to drop a course is usually the thirty-first calendar day of a semester and the fourth calendar day of intersession and summer terms; specific dates are published in the official University academic calendar. A refund schedule for dropped courses applies to students paying on a per-credit basis or completely withdrawing from the University. Under this schedule, the last day for 100% tuition refund is usually the tenth calendar day from the first day of classes for a semester and the second calendar day from the first day of classes for shorter terms; the refund schedule dates are published in The University academic calendar.

Withdrawal from a Course

After the end of the period to drop a course without having it reflected on the transcript, students may still withdraw from a course until the published deadline and receive a W grade on their transcript. In all cases, students should first discuss the matter with the course instructor.

Students who wish to withdraw from one or more courses but who plan to continue to attend at least one course for the term, need to have a Schedule Change Form signed by their instructor and dean. Students who wish to withdraw from their last course(s) must complete the Withdrawal/Leave of Absence Form. In either case, the forms are available through the Registrar's Office, the academic advising centers, academic department chairpersons' offices, and Dexter Hanley College. The completed forms must be submitted to the Registrar's Office or, in the case of DHC students, to Dexter Hanley College by the withdrawal deadline as indicated in The University academic calendar. This deadline is approximately 30 days before the last class day for the semester and a proportionate period of time for a short session. Failure to withdraw officially from a course(s) may result in a failing grade(s).

Courses Taken as Readers (Independent Study)

The primary purpose of a reader course is to enable University of Scranton students in good academic standing to pursue a course of study not otherwise offered during the term in which the reader is taken. Readers **may not** ordinarily be used to fulfill general education requirements. Students may take no more than one reader per term and no more than one reader per year, on average, during the course of their degree programs. Readers are to be taken for the same number of credits as are granted similar courses in the discipline in which the reader is offered. Readers may not ordinarily be used to repeat failed courses. Exceptions to these policies must be approved by the dean of the student's college and by the dean of the school offering the course. Reader request forms are available through the Registrar's Office, the academic advising centers, and Dexter Hanley College. The completed forms should be submitted to the Registrar's Office or Dexter Hanley College by the last day to add courses as published in the University academic calendar.

Enrollment Status and Attendance Policy

To be considered a full-time student, undergraduate students must be registered for at least 12 credits in any given term or semester, regardless of the number of credits remaining to complete degree requirements.

Students are expected to attend all scheduled meetings of courses in which they are enrolled. Students are responsible for all material presented and announcements made during any class. Attendance policies for individual courses are determined by the instructor and must be promulgated in writing in the course syllabi.

Final Examination Conflicts

When a student has three or more examinations scheduled on the same day, according to the examination schedule issued by the Registrar's Office, the student can decide whether to take all three examinations on the same day or to have one rescheduled. If the student wishes to have one of the three examinations rescheduled, the examination with the lowest priority will be rescheduled. Order of priority: (1) major course, (2) cognate course, (3) elective course.

Where a conflict exists between two courses of the same kind (e.g., two cognates or two electives), the more senior professor – in terms of years of service at The University of Scranton – will have first priority.

If a student wishes to reschedule a conflict examination, he/she must advise the faculty member prior to the last week of class. If an appropriate resolution cannot be reached between the student and the faculty member, the student should contact his/her dean.

Grading System

Grade reports are mailed to all students at the end of each semester and are part of students' official record. Freshmen receive mid-semester grades to inform them of their progress. Upper-class students receive notice at the mid-semester if they are "deficient" and in danger of failing the course at that time. Grades are also available via the University Information System (UIS) at https://uis.uofs.edu.

A, A-	Excellent (outstanding and/or original work)
B+, B, B-	Good
C+, C	Satisfactory
C-, D+, D	Passing but well below average
F	Failure (below minimum acceptable standards)

Additional Grading Codes

W	Withdrew officially; deadline is one month before the last day of classes for the semester
I	Incomplete – notes a course not completed due to illness or other serious reason; to remove this grade students must satisfy all course requirements by mid-point of the following semester or the grade will be converted to an F.
IP	In Progress – must be removed by the last day of the following semester (normally for honors thesis courses only)
S	Satisfactory – not calculated in grade point average (GPA)
U	Unsatisfactory – equivalent to failure; not calculated in GPA
AU	Audited course not taken for credit; does not count toward degree requirements or in the GPA
CR	Credit by exam
CS	"Credit Satisfactory" – notes a course taken under the "credit-no credit" option in which a grade of "C" or higher is earned; counts in hours earned toward degree but not in GPA
CD	"Credit Deficiency" – notes a course taken under the "credit-no credit" option in which a passing grade less than C (C-, D+, D) is earned; counts in hours earned toward degree but not in GPA
NC	"No Credit" – notes a course taken under the "credit/no credit" option in which a passing grade is not earned; does not count toward hours earned toward degree and does not count in GPA
NG	No grade assigned
TC	Transfer credit

Audit

Entry of the audit grade (AU) on a transcript assumes satisfactory attendance. The student should consult with the instructor as to what constitutes satisfactory attendance. A change to audit can be made only by passing students and before the end of the first half of a semester.

Repeat of Course

Special permission is not needed to repeat courses. Recording of grades for repeated courses shall be governed by the following conditions: (1) credit for a course will be granted only once; (2) credit for the course will be lost if the course is repeated and failed; (3) the most recent credit and grade will count toward the grade point average with the exceptions that a W, I, or NG grade cannot replace another grade; (4) each attempt to complete a course will be reported on the student's transcript even though the credits of the earlier attempts do not count in the cumulative grade point average (e.g., a course with a grade of F will continue to appear on the transcript even after the course has been repeated with a passing grade, although the credits from the initial failed attempt will not be used in the calculation of the cumulative GPA).

Change of Grade

A student who believes the grade received for a course is unreasonable should first appeal the matter to the professor, whose decision is normally final. The student has the right, however, to appeal to the faculty member's chairperson, who will make a recommendation in writing to his or her dean. The student may request the dean to review the matter. The decision of the dean is final. Ordinarily, no grade change will be considered unless it has been reviewed by the dean's office within one month from the time the original grade was sent to the student.

Grade Point Average (GPA)

A standard used in judging a student's performance is the grade point average (GPA). The value of each semester hour of credit earned is determined as follows: **a grade of A is valued at 4 quality points; A- at 3.67 quality points; B+ at 3.33; B at 3.0; B- at 2.67; C+ at 2.33; C at 2.0; C- at 1.67; D+ at 1.33; D at 1.0. An F yields no quality points.** Thus, for example, a 3-credit course with a grade of A yields 12 quality points; a B yields 9; a C yields 6.

The GPA is computed by dividing the total number of quality points earned by the total of grade point average credit hours. For example, 15 credit hours, all at C grade, would earn 30 Quality Points or a 2.0 GPA (30/15).

The total number of grade point average credit hours includes those courses with final grades of F as well as A, A-, B+, B, B-, C+. C, C-, D+ and D. CD, CR, CS, I, IP, NC, NG, S, W, TC and U credit do not count toward the GPA. This grade point average applies only to courses taken at The University of Scranton and is not affected by credit transferred from other colleges.

A grade point average listing is made at the end of each semester. On the basis of his or her cumulative grade point average, a student's rank in class and eligibility for Latin honors at graduation are determined. See Latin Honors upon Graduation.

Grades with Distinction

Dean's Lists

To be eligible for the Dean's List, College of Arts and Sciences, Kania School of Management, and Panuska College of Professional Studies students must earn 12 or more credit hours which count toward the semester GPA (credit hours of CS, CD, and S grades are not counted toward this requirement). Dexter Hanley College students need to complete 6 or more credit hours which count toward the semester GPA to be eligible for the Dean's List. Of the eligible students, those who earn a 3.50 or higher semester GPA and no grade of D+, D, F, CD, NC, I, NG or U are named to the Dean's List for that semester. Students placed on the Dean's List will have this distinction indicated on their transcripts. A student's GPA will be recalculated when the last temporary grade (I, NG) is replaced by a final grade. If this new GPA meets the above standard, the student will be placed on the Dean's List.

Presidential Honors

To be eligible for the Presidential Honors, students must maintain a 3.5 GPA or higher for both the fall and spring semesters. Students who are selected for Presidential Honors are recognized each year at an Honors Convocation, which is held during the fall semester.

Grade Option: "Credit/No Credit"

The "credit/no credit" option is designed to encourage students to take courses of interest but outside their concentrated areas of study. Courses used to fill free elective and free cognate requirements are eligible to be taken with this option. Courses taken under the "credit-no credit" option count toward the accumulated credit hours for the degree, but they are not included in the grade point average calculation.

Students with a cumulative GPA of 2.67 or greater who have accumulated at least 60 credits toward their degree may elect to take some courses on a "credit/no credit" basis. Students may apply for the "credit-no credit" option by seeking approval from their dean's office and filing the completed forms with the registrar by the end of the second week of the semester (or by the second day of summer sessions and intersession). The option cannot be reversed after the fourth week of class (or the fourth day of summer sessions and Intersession). Courses used to fulfill general education requirements, courses in the major and cognate, as well as courses in a minor or concentration, and those used to fulfill requirements in the Honors, SJLA, and Business Leadership programs may not be taken under the "credit-no credit" option. Students may take no more than a total of four courses under this option, and no more than one per semester (other than internships, practicums, or physical education courses). Students receive the following transcript notations under the "credit/no credit" option: A grade of C or higher yields a CS (credit satisfactory) notation; a passing grade less than C (C-, D, D+) yields a CD (credit deficiency) notation; a grade less than passing (F) yields an NC (no credit) notation.

Grade Difficulties: Probation and Dismissal

One semester of probation is granted to students whose cumulative GPA falls below 2.0, or who otherwise are in danger of dismissal. A second semester of probation is not automatic; students who do not remove themselves from probation after one semester are subject to dismissal, unless excepted by the appropriate dean. Students who receive an F while on probation are also subject to dismissal, as are students who incur two F's in one semester, or who accumulate three F's that have not been successfully retaken. Probationary status may be removed through adequate achievement in summer school or intersession at The University of Scranton.

Students on academic probation are allowed to take no more than 14 credits (in Dexter Hanley College, no more than 12 credits) during the fall or spring semesters without explicit written approval of the appropriate dean. Students on academic probation are ineligible for participation in extracurricular activities without the written approval of their moderator, academic advisor and dean.

Students placed on academic probation for a second semester may not participate in any extracurricular activity until such time as they are formally removed from academic probation.

University policy prohibits students dismissed from another institution or a college of the University from registering for courses in any of the colleges of the University in the semester following dismissal.

Graduation Procedures and Commencement

The University of Scranton provides the opportunity for students who have completed degree requirements to graduate at one of four points throughout the academic year: summer graduation (graduation date: August 31), fall graduation (graduation date: December 31), intersession graduation (graduation date: January 31), or spring graduation (graduation date coincides with the annual Commencement exercise). Commencement exercises are held once each academic year at the conclusion of the spring semester; the date is published in the official University academic calendar. Normally students who are certified to graduate in the summer, fall, intersession or spring may participate in Commencement.

Certification of graduation, receipt of a degree, and permission to participate in Commencement are not automatic. Seniors expecting to complete degree requirements in time for spring graduation must make formal application through the Registrar's Office or Dexter Hanley College by February 15. Students who are expecting to complete degree requirements for summer, fall or intersession

graduation must make formal application a minimum of four weeks prior to the end of the appropriate term.

Walker Policy

Undergraduates who are within 6 academic credits of fulfilling all graduation requirements and are in good academic and disciplinary standing may request to "walk" at Commencement in the spring. They must present to their dean a plan to complete their remaining credits at The University of Scranton during the summer or fall sessions and receive the dean's approval. Students may not participate in a second commencement upon completion of all degree requirements.

Graduation Honors

To be eligible for graduation and for Latin honors at commencement, a baccalaureate degree student must have completed a minimum of 63 credit hours of course work at The University of Scranton. *Note:* Latin honors are based upon a student's final cumulative GPA at the completion of the baccalaureate degree program.

Summa cum laude: 3.85 cumulative GPA with a minimum of 45 credits counting in the GPA

Magna cum laude: 3.65 cumulative GPA with a minimum of 45 credits counting in the GPA

Cum laude: 3.50 cumulative GPA with a minimum of 45 credits counting in the GPA

Interruptions in Attendance: Leaves of Absence and Complete Withdrawal

Leave of Absence

Students may request their dean's approval for a leave of absence by completing and submitting the Withdrawal/Leave of Absence Form available from the Registrar's Office, academic advising centers, academic department chairperson offices, and Dexter Hanley College. Graduation requirements in effect for students at the time their approved leave begins will remain in effect when they return from their leave under the following conditions:

- They are in good academic and disciplinary standing at The University when their leave begins.
- They may not take courses at another institution without first securing written approval from their dean.
- Their leave is limited to one semester but may be renewed for one additional semester with the written permission of their dean.
- They place their addresses and phone numbers on file in the Registrar's Office (or Dexter Hanley College for DHC students) and promptly report any address/phone number changes to that office.
- They understand that this policy does not bind The University to offer their curricula or major programs, which may have been discontinued or substantially altered during their leave of absence.

Students who interrupt their education without an approved leave of absence must apply for readmission and will be subject to the catalog requirements in effect at the time of readmission. Students on an approved leave of absence must apply for readmission but retain the same requirements they had when they matriculated if their leaves do not extend beyond a year.

Military Leave Policy

If a student is called or volunteers for active military duty while attending The University of Scranton, The University will do its best to protect the academic and financial interest of the student within the norms of good academic judgment. The student must meet with the dean of his/her college and provide proof of being called to active duty. The dean, after conferring with the Director of Financial Aid, the Treasurer, the student's current faculty, and the student, will decide the course of action. The dean will then process the necessary paperwork and place the student on military leave status. If the student does not concur with the dean's decision, the student may appeal to the provost/vice president for academic affairs. The student is responsible for all room and board and related expenses incurred. Deans must confer with the Financial Aid and Treasurer's Office before making decisions regarding refunds.

Complete Withdrawal from the University

Students wishing to drop or withdraw from all of their courses, thereby discontinuing their enrollment, must secure their dean's per-

mission to withdraw from The University. Students should also discuss any questions with their advisor or department chairperson. The form for withdrawal may be obtained in the Registrar's Office, Dexter Hanley College office, the academic advising centers, or in academic department chairpersons' offices. University withdrawal is not official until all signatures required on the Withdrawal/Leave of Absence Form have been obtained and the form is submitted to the Registrar's Office or, in the case of DHC students, to Dexter Hanley College.

Any tuition refund will be determined by the official date of University withdrawal. No grades will be recorded on the student's academic record if the official University withdrawal date is on or before the last day for 25% tuition refund or the last day to drop courses according to the official University academic calendar. Grades of W will be recorded for course work if the official University withdrawal date coincides with the course withdrawal period. Final grades will be recorded for course work if the official withdrawal date is after the course withdrawal period for the term.

Readmission to the University

A student who fails to enroll for a semester without an approved leave of absence must apply for readmission to The University and, if accepted, will need to satisfy the catalog requirements in effect at the time of readmission.

Academic Renewal Policy Upon Readmission

Students who have not attended the University for at least five calendar years may request academic renewal. At the time of readmission, students seeking academic renewal must complete an academic renewal form and may petition their Dean to have up to 16 credit hours of deficient grades removed from their grade point averages (GPA). The deficient courses and their grades will remain on the transcript; they will, however, be excluded from the GPA and earned hours and will not count toward graduation requirements. The courses with excluded grades on the transcript will be designated with an E, and the transcript key will explain that E means the course grade has been excluded from the GPA and earned hours, yielding an amended GPA. A comment also will be added to the transcript indicating that the student received academic renewal and the date.

Transferring Credits from Other Institutions Once Matriculating at The University of Scranton

Matriculating students in good academic and disciplinary standing at The University of Scranton can transfer in a **maximum of 10%** of the total credits in their program. Transfer students from another institution will be limited to a maximum of 10% of the total credits remaining in their program from the initial point of University of Scranton matriculation. All students must complete at least 63 credits at The University of Scranton, including the last 30 credits.

University of Scranton students who have completed their sophomore year (60 credits) are permitted to take courses at other four-year, regionally accredited institutions. Those who have not completed their sophomore year may be approved for courses at two-year or four-year regionally accredited institutions. Grades below C received elsewhere are not transferable to The University; no grades from other institutions are computed into the student's grade point average.

Students must secure the permission of their dean to take courses at another institution. Students may not ordinarily take a course at another institution if they have failed the same course at The University of Scranton; however, exceptions to this policy can be made by the student's dean.

Student Rights and Confidentiality of Information

The University of Scranton recognizes the privacy rights of individuals who are or who have been students, as guaranteed by the Family Educational Rights and Privacy Act (FERPA) of 1974. No information from educational records, files, or other data directly related to a student shall be disclosed to individuals or agencies outside The University without the express written consent of the student. Except where prescribed by law, information regarding a student's education record may not be disclosed to a parent, guardian or spouse without the student's writ-

ten authorization on file in the Office of the Registrar, Dexter Hanley College (DHC students), or Graduate School (graduate students).

FERPA does authorize the University to disclose information without consent to school officials with legitimate educational interests who need to review an education record in order to fulfill their professional responsibilities. The following people or agencies are also allowed access to records without consent: persons or companies with whom The University has contracted (such as attorneys, auditors or collection agents); students serving on official committees (such as disciplinary or grievance committees) or assisting school officials in performing their tasks; persons or organizations to whom students have applied for financial aid; persons in compliance with a lawful subpoena or court order; and persons in an emergency in order to protect the health or safety of students or other persons.

The University considers the following to be public information that may be made available, at its discretion, without prior consent of the student:

- Name
- Former name(s)
- Address (local and permanent)
- Telephone number (campus/local and permanent)
- Date and place of birth
- Photograph
- Major field of study
- Participation in officially recognized activities and sports
- E-mail address
- Dates of attendance
- Enrollment status
- Campus employment
- Class level
- Expected/actual date of graduation
- Degrees, awards, academic honors
- Weight and height of members of athletic teams

Students who wish to prevent the public disclosure of any or all the above information may complete and submit a request to the Office of Student Affairs, Registrar's Office, Dexter Hanley College (DHC students) or the Graduate School (graduate students). Request forms are available from any of the preceding offices.

A directory of names, addresses and telephone numbers of students is promulgated by The University at the beginning of the fall semester. Students who do not wish to be listed in the campus directory must notify the University by the end of the first week of classes in the fall semester.

FERPA affords students the right to inspect and review their educational records within 45 days of the day The University receives such requests. Students should submit to the Registrar or other appropriate official written requests that identify the record(s) they wish to inspect. University officials will make arrangements for access and notify requesting students of the time and place where their records may be inspected.

Students have the right to request the amendment of any educational records that they believe are inaccurate or misleading. They should write to the University official responsible for the record, clearly identify the part of the record that they want changed, and specify why they believe it is inaccurate or misleading. If The University decides not to amend the records as requested, The University will notify students of the decision and advise them of their right to appeal the decision and the process that must be undertaken to do so.

For more information regarding FERPA, please contact the Office of the Registrar, Room 301, St. Thomas Hall. Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by The University of Scranton to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-4605.

In addition, The University of Scranton complies with the Student Right-to-Know Act by providing graduation rate information to current and prospective students upon request. Graduation rate information may be obtained by contacting the Registrar's Office or the Office of Admissions.

Degree Programs

The University offers the following degree programs for the undergraduate student. Consult departmental listings for details.

Majors

Bachelor of Arts

Classical Languages
Communication
English
French
German
History
International Language-Business
Philosophy
Spanish
Theatre
Theology/Religious Studies

Bachelor of Science

Accounting
Accounting Information Systems
Biochemistry
Biology
Biomathematics
Biophysics
Chemistry
Chemistry-Business
Chemistry-Computers
Computer Engineering
Computer Information Systems
Computer Science
Counseling and Human Services
Criminal Justice
Economics
Early Childhood Education
Electrical Engineering
Electronic Commerce
Electronics-Business
Elementary Education
Enterprise Management Technology
Environmental Science
Exercise Science
Finance
Gerontology
Health Administration
Human Resources Studies
International Business
International Studies
Liberal Studies*
Management
Marketing
Mathematics
Media and Information Technology
Medical Technology
Neuroscience
Nursing
Occupational Therapy†
Operations Management
Physical Therapy+
Physics
Political Science
Psychology
Secondary Education
Sociology
Special Education

*Associate in Arts**

*Associate in Science**

Business
Computer Engineering
Computer Information Systems
Criminal Justice
Electrical Engineering
Gerontology
Health Administration
Human Services
Political Science
Sociology

Minors

Minors, which require a minimum of 15 hours, are currently available in the following fields. Courses counted toward a major may not be counted toward the first 15 credits of a minor. However, courses counted toward a cognate or general education courses may be used to fulfill minor requirements.

Accounting
Accounting Information Systems
Art History
Biochemistry
Biology
Business
Chemistry
Coaching
Communication
Computer Information Systems

** Available through Dexter Hanley College only.*

† Students entering the Occupational Therapy Program will earn a B.S. in Health Sciences after completing the first four years of a five-year program and a Master of Science degree in Occupational Therapy after completion of the fifth year.

+ Students entering the Physical Therapy program will earn a B.S. in Health Sciences after completing the first four years of a five-year program and a Master of Physical Therapy degree (M.P.T.) after completion of the fifth year.

Computer Science
Counseling and Human Services
Criminal Justice
Economics
Electronic Commerce
English
Finance
Foreign Language
Gerontology
Health Administration
History
Human Resources Studies
International Studies
Leadership
Management of People and Teams
Management of Structures and Systems
Mathematics
Music History
Operations Management
Philosophy
Physics
Political Science
Psychology
Sociology
Theatre
Theology/Religious Studies
Writing

Special Programs

Combined Baccalaureate/Master's Degree

Undergraduate students of the University, with outstanding undergraduate records, may be eligible to be accepted and dually enrolled in a master's degree program prior to graduation. A student who has achieved an overall grade point average of 3.5 after 64 semester hours, 3.4 after 80 semester hours, 3.3 after 96 semester hours, or 3.2 after 112 semester hours (with at least 32 graded hours at the University) may apply for early admission to a master's degree program through the Combined Baccalaureate/Master's Degree Program. Master's degree programs that accept Combined Baccalaureate/Master's Degree students and details of those programs are found in the section on The Graduate School.

Double Major

Students at the end of the first semester of freshman year or thereafter may elect to pursue a second field of concentration in addition to their first major. Students must secure written permission from the appropriate dean and the two pertinent departmental chairs. Students pursuing a second major are required to complete all major and required cognate courses and any general education courses that are explicitly required as part of the second major. The remainder of the credits in the General Education area need not be repeated. Except for double majors involving education and a content area, a second major will not be awarded for fewer than 18 credits in the second field that are not counted as part of the first major. Students completing double majors receive only one degree and diploma.

Faculty/Student Research Program

The Faculty/Student Research Program (FSRP) gives students an opportunity to be involved in faculty research. Students in all fields can participate. They engage in a variety of activities ranging from relatively routine tasks to more sophisticated research.

There is no cost for the FSRP; the program is open to all students in good academic standing including incoming freshmen. While students do not receive academic credit, they do receive transcript recognition.

To participate in the program, students must identify a faculty sponsor with whom they want to work. This can be done either by talking to individual faculty members directly about their research interests or by consulting the FSRP Directory. The Directory includes information on research projects and any student prerequisites. When a student and faculty member agree to work together, they complete a learning contract that outlines the nature of the research, the tasks involved and the hours to be worked.

For further information about this program, contact the Office of Research Services, O'Hara Hall, (570) 941-6190.

Fellowship Programs

The Office of Fellowship Programs, located in St. Thomas 312, assists students preparing to make application for national and international awards, including, among others, the Truman, Mellon, James Madison, National Science Foundation, Goldwater, Soros, Churchill, Marshall, and Rhodes Scholarships. The University Director of Fellowship Programs, Dr. Mary Engel, advises students

with outstanding academic records in the identification of appropriate fellowships and scholarships. Members of the Matteo Ricci Society, including the directors of the Undergraduate Honors Program, the Special Jesuit Liberal Arts Program, and the Business Leadership Program, as well as the faculty advisors for the Truman, Goldwater, Fulbright, and National Science Foundation, provide guidance to the Fellowship Program.

International Programs and Services

In fulfillment of our mission as a Catholic and Jesuit institution, The University of Scranton is committed to building a diverse international institution that serves the needs of an increasingly interdependent global community. We strive to create a welcoming and richly diverse campus with a strong commitment to international education and fellowship of the human family.

The Office of International Programs & Services promotes the University's mission by facilitating the integration and acculturation of international students and scholars as well as by promoting initiatives such as study abroad, scholar exchanges, international internships, global partnerships and service learning programs. Our international programs and services are designed to encourage and foster understanding and appreciation of our diverse planet as well as to help prepare our students for successful participation and leadership in a global society. We invite you to visit us to learn more about how we are building bridges to promote intercultural understanding, global competency and fellowship in our interconnected world.

Our History

The University of Scranton has a solid international education record. The University has been educating international students since 1946 and remains committed to that tradition. At present, students from almost 30 different countries are enrolled in either the undergraduate or graduate schools. Additionally, The University of Scranton is committed to sending students abroad. To date, students from nearly every major have studied in institutions such as the University of Oxford (England), The Universidad Iberoamericana (Mexico), The American University in Cairo (Egypt), Universidad Santiago de Compostela (Spain), Ateneo de Manila (The Philippines), Assumption University (Thailand) and the Universidad Catolica de Valparaiso (Chile), The Catholic University of Leuven (Belgium) and the Sorbonne (France). Our faculty, administrators and staff have also been educated in universities worldwide. Our faculty members hold degrees from 135 different universities in 30 countries on five continents. Faculty have received degrees from such institutions such as the University of Cambridge (England), The University of Ghana (Ghana), The University of Gdansk (Poland), Pahlavi University (Iran), The University of Nairobi (Kenya)the University of Calcutta (India), the University of Thessalonika (Greece), Sophia University (Japan) and Soochow University in China.

Study Abroad

The University of Scranton provides opportunities for students to continue their studies at other universities around the world. International Programs and Services provides one-stop shopping for students interested in studying abroad. The Office encourages students who have an interest in gaining global experiences to stop by early and often in their academic career. Experts will help students identify study abroad options, provide academic advising, process applications, and provide comprehensive pre-departure services. The University works closely with institutions around the world and is committed to working with the individual student to identify the study abroad site that is best for them. Financial aid packages and University of Scranton scholarships may be used while studying abroad.

International Students and Scholars Services

International Students and Scholars Services (ISS) ensures the smooth integration and acculturation of international students and scholars into the University community; ensures compliance with immigration regulations for the University; facilitates relocation of international students and scholars to the Scranton area; provides guidance, counseling and mentoring; and creates opportunities for international students and scholars to become valued and productive members of the community. ISS provides and arranges for a range of support services for international students

and scholars including health, housing and relocation services. Our staff is always ready and available to counsel and advise on cross-cultural adjustment, and personal issues; and we assist faculty and staff in providing an appropriate support environment for international students and scholars. ISS also plans and implements socio-cultural programming for international students, scholars and their cohorts, including cross-cultural dialogues, symposia, lectures, trips and international festivals. We actively promote several global initiatives: including the Family Friendship Program, the Global Ambassador Program, International Language Xchange Program, the Global Dialog Series, the Global Volunteer Program and the International Scholars in Residence Roundtable.

Global Initiatives

International Programs and Services also serves the University's mission by promoting initiatives such as scholar exchanges, international internships, global partnerships, service learning programs as well as a variety of other international scholar experiences (seminars, conferences, workshops, multilateral collaborative projects). To ensure faculty have the support necessary to prepare our students for successful participation and leadership in global society, the University encourages and facilitates international faculty exchanges and student collaborations.

Internship Programs

The University's commitment to internships and other types of career-related learning experiences as an integral part of the educational process is strong and growing. Since the fall of 1995, over 1,500 students have enrolled in for-credit internships related to their majors or vocational goals.

The University of Scranton offers two kinds of career-related learning experiences – for-credit internships and non-credit, career-related work experiences. Internships for credit give students opportunity to reflect upon, analyze and critique their experiences in ways that demonstrate their ability to integrate what they have learned in the classroom with what they are learning in the field. For-credit internships require that students be supervised by a faculty member and an on-site supervisor, and that they develop a set of clearly defined learning objectives, internship responsibilities and an assessment plan. Non-credit, career-related work experiences assist students in gaining work experience that complements their academic preparation. They are less structured and do not necessarily relate to specific course work.

For-credit internships are available to students in many majors. For specific information on such internships, students should contact their academic advisors. Students wishing to participate in the non-credit Career Experience Program should contact the Career Development and Placement Center (941-7640) to schedule an appointment with one of the counselors.

Second Degrees

Persons with good scholastic records and baccalaureate degrees from regionally accredited institutions, who wish to earn second baccalaureate degrees, must apply to Dexter Hanley College.

Service Learning

The Panuska College of Professional Studies, in keeping with the mission of this University, is committed to a program of service-learning, which provides a link between community service and academic study. Students learn and develop by participating in thoughtfully organized service that is conducted in and meets the needs of the community. Service-learning is integrated into and enhances students' academic curriculum by providing structured time for students to reflect on the service experience. The service experience is an effective strategy for achieving enrichment and introducing the student to the academic, social and civic needs of diverse groups of people. Through this program, students in The Panuska College of Professional Studies complete service-learning experiences as a requirement for graduation.

Several courses in the College of Arts and Sciences also include a service-learning requirement.

Special Sessions

The University of Scranton annually offers Intersession in January and two summer sessions to allow students to accelerate their degree programs or to make up courses that may not have been completed during the regular semesters.

Student/Faculty Teaching Mentorship Program

The Student/Faculty Teaching Mentorship Program offers advanced students the opportunity to assist and be mentored by faculty in the teaching of selected courses. Together, they will craft the teaching/tutoring experiences that best fit the pedagogical requirements of the relevant course.

There is no fee assessed for this non-credit experience. While students do not receive academic credit or a grade, they do receive transcript recognition. The program is open to all undergraduate and graduate students in good academic standing.

For more information about the program, please contact the Center of Teaching and Learning Excellence, 5th Floor, Harper-McGinnis Wing of St. Thomas Hall, (570) 941-6129.

Three-Year Bachelor's Degree

The University of Scranton's curriculum and academic calendar allow qualified students to attain their bachelor's degrees within three years – thus considerably reducing the overall cost of their undergraduate education and allowing the student to enter the marketplace or begin graduate and professional studies a year earlier. While Advanced Placement or College Level Examination Programs credits are very useful for this, a student who does not bring these from high school may still complete the degree program in most majors within three years through the use of January intersession courses and/or summer-school sessions. The presumption is that normal academic progress is being made. Typically, two summer schools (12 credits each) and two or three January intersessions will suffice. Especially qualified students may be allowed overloads from the appropriate dean to further reduce this – as will Advanced Placement credits. The dean should be contacted as early as possible in a student's career in order to facilitate the needed scheduling. Entering freshman students may want to use the summer school immediately following their high school graduation to further this three-year program; the Director of Admissions should be consulted with respect to this. Details on the special Scranton Preparatory/University Seven Year (4-3) High School-College Degree Program are available from the dean of studies at Scranton Preparatory.

University of Scranton/Marywood University Cross-Registration

This program is available to second-, third- and fourth-year students in good academic standing. Transfer students are eligible after completing their first year at The University of Scranton. Students may take two such courses (equivalent to 6 credits) during the calendar year (January to December), with the approval of their advisor and dean, and on a space-available basis.

Honors Programs

Special Jesuit Liberal Arts Program (SJLA)

Rev. Ronald McKinney, S.J., *Director*

Available by invitation to incoming freshmen, the Special Jesuit Liberal Arts Program provides an alternate way of fulfilling General Education requirements. Students not selected initially may apply for admission as second semester freshmen or as sophomores. Courses for SJLA program participants, who are drawn from all different majors, attempt to foster the following skills that University graduates have found particularly useful in law, medicine, business and graduate school:

1. An understanding of key achievements in the literature, history, philosophy, theology and science of the Western classical and Christian heritage;
2. An ability to apply logical, systematic, and critical reflection to any given intellectual problem;
3. An understanding of and sensitivity toward the contemporary problems of our day;
4. An outstanding ability to communicate clearly and persuasively one's ideas through both the spoken and written word (what Jesuits have historically referred to as *eloquentia perfecta).*

Students are expected to become involved in extracurricular and service activities on campus if they wish to remain in SJLA. Many participants also study abroad, earn a double major in philosophy, and join the Honors Program if they apply and are accepted during their sophomore year. Above all, participants are expected to seek out and interact with their professors and other students in this

SJLA Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
	MAJOR/COGNATE	Major/Cognate	6-9	6-9
	LANG	Modern or Classical Language	3	3
	PHIL 120J-210J	Intro. to Philosophy-Ethics	3	3
	T/RS 121J-ELECT	Theology I-Elective	3	3
	FSEM-PHED	INTD 100-Physical Education	1	1
			16-19	16-19
Second Year				
	MAJOR/COGNATE	Major/Cognate	9-12	9-12
	ELECT-T/RS 122J	Elective-Theology II	3	3
	PHIL 217J-311J	The Trivium-Metaphysics	3	3
	PHED	Physical Education	1	1
			16-19	16-19
Third Year				
	MAJOR/COGNATE	Major/Cognate	9	9
	ELECT-INTD 110J	Elective-The Jesuit Magis	3	3
	HUMN 311J-312J	Masterworks I-II	3	3
	PHIL 322J-ELECT	Philosophy of Conscience-Elective	3	3
			18	18
Fourth Year				
	MAJOR	Major	6	6
	ELECT	Elective	3	3
	PHIL 419J-413J	Philos. East & West-End of Philos.	3	3
	T/RS 314J-ELECT	Religions of the World-Elective	3	3
			15	15

TOTAL: 130-142 CREDITS (depending on major)

community of learning, which is under the direction of Rev. Ronald H. McKinney, S.J.

SJLA students are eligible to apply for the Christopher Jason Perfilio Memorial Scholarships, awarded each year since 1995.

Course Descriptions

PHIL 120J 3 cr.
Introduction to Philosophy
The aim of this course is to awaken in the student an appreciation of the nature and method of philosophical inquiry through an examination of key texts, which grapple with the central questions that have arisen in the history of philosophy.

PHIL 210J 3 cr.
Ethics
Through the presentation of a select history of moral philosophy, students are introduced to the philosophical discipline of ethics. Original texts of such thinkers as Plato, Aristotle, Epicurus, Epictetus, St. Augustine, Hobbes, Kant, Mill, and Nietzsche are enlisted to explore the most fundamental question in ethics, "What is the good life?"

PHIL 311J 3 cr.
Metaphysics
A textual inquiry into the adequacy of philosophical responses to the fundamental question, "What Is?" Special attention will be given to Aristotle, Hume, Kant, and Nietzsche.

PHIL 217J 3 cr.
The Trivium
Via numerous writing projects and speeches and the analysis of select philosophical texts, this practicum in grammar, logic, and rhetoric will encourage the student to connect the basic elements of reason, discourse, and persuasion.

PHIL 322J 3 cr.
Philosophy of Conscience
Studies the role of conscience in moral judgment and considers its metaphorical and narrative elements. Explores the difference between clarity and community, truth and wisdom, principle and prudence as we study possible links between conscience, reason, eros, imagination and education in some of the works of Plato, Kant and Marx.

PHIL 413J 3 cr.
The End of Philosophy
The title of this SJLA capstone course refers to its three objectives. These are: (1) to complete

and unify SJLA coursework in philosophy, (2) to clarify philosophy's purpose or goal, and (3) to interpret contemporary anxiety about the end of the philosophical tradition.

PHIL 419J **3 cr.**
(D) Philosophy East and West
This capstone course of the SJLA program brings non-Western philosophy and philosophers into a dialogue with Western philosophy and philosophers on major philosophical topics.

T/RS 121J **3 cr.**
(P) Theology I: Introduction to the Bible
A survey of central texts and themes of the Bible. Its purpose is to develop biblical literacy as well as skills in interpreting various literary forms and key theological concepts.

T/RS 122J **3 cr.**
(P) Theology II: Introduction to Christian Theology
(Prerequisite: T/RS 121) A survey of key Christian themes: creation, Christ's incarnation and redemption, the Church and sacraments, Christian personhood, and the practice of prayer, virtue, and hope for the future.

T/RS 314J **3 cr.**
The Religions of the World
An exploration of belief in the traditions of the classical historical religions of the world through both systematic analysis and the reading of sacred texts.

INTD 110J **3 cr.**
The Jesuit Magis
The purpose of this course is to teach students how to coordinate several themes into an integral whole: Jesuit commitment to faith and justice, in terms of the Magis; service to others as a concrete response to social analysis, complemented by guided reflection upon the experience of service.

HUM 311J-312J **6 cr.**
Masterworks I-II
In this team-taught, year-long seminar, students will read some of the great classics of world literature, learn how to facilitate their own discussions, write a comparative analytic paper, and be orally examined by a host of volunteer professors.

Electives and Exemptions

SJLA's five or six elective (beyond the two-semester language requirement) credits are intended to be used toward courses in math, computer literacy, and the natural and social sciences. There are always exemptions made to ensure that everyone takes at least 130 credits but no more than a credit-heavy major requires. Special exemptions may also be possible for those participating in foreign study, in Honors, or in a difficult double major or minor.

Honors Program

Ellen M. Casey, Ph.D., *Director*

The Honors Program at The University of Scranton concentrates on directed independent work for selected students who desire greater depth and breadth in their education. The Honors curriculum is designed to fit into existing University course requirements and to support students as they move into increasingly independent work. The sophomore courses, open only to Honors students, enable them to meet a University general education requirement on a more advanced level.

Junior Honors students take tutorials both in and out of their majors. A tutorial is an exploration of a topic on an individually directed basis; the student meets with a faculty mentor weekly throughout the semester. Each Honors student must take three tutorials, at least one in the major and one out of the major or in the second major. The student may take a fourth and fifth tutorial. These tutorials count toward major, minor, cognate, or general education requirements.

In the Honors seminars, a small group of Honors students meets weekly with the director and assistant director for student-led discussions. The junior seminar is based on an interdisciplinary reading list; the senior seminar is based on the senior Honors projects.

There is no tuition charge for these seminars, since they are the only Honors requirements that do not satisfy ordinary graduation requirements.

Senior Honors students do a yearlong, 6-credit project in their majors, working under the guidance of a professor to explore a specialized topic, either academic or professional in nature. Upon completion, the project is defended before a board of three faculty members who judge whether it is of Honors caliber.

There is no extra charge for Honors work. In addition, honors students who pay flat tuition may take between 12 and 21 credits in their third and fourth years at the flat rate.

Honors Program Schedule

Second Year
Fall: Application
Spring: Honors Course

Third Year
Fall: 1 or 2 tutorials
Spring: 1 or 2 tutorials, HONR 387: Junior Honors Seminar

Fourth Year
Fall: Honors Project, HONR 489H: Senior Honors Seminar
Spring: Honors Project; Defense of Project

Admission to the Honors Program

Applications are accepted every fall from those students who have at least 18 hours of college credit and who expect to graduate after three more years of work at the University. Applicants must ordinarily have at least a 3.3 GPA; a minimum of a 3.5 GPA (cum laude) is required for graduation in the program. The number of spaces in the program is limited, and admission is based on the applicant's high school and college records, SAT scores, application, recommendations, and interviews. For further information contact Dr. Ellen Casey, Director of the Honors Program.

Course Descriptions

No Honors Program courses may be taken on a Pass/Fail basis.

HUM 286H — **3 cr.**
(C,W) Victorian Studies
This course uses literature to explore 19th-century British social and intellectual history. Focusing on the period from 1832-1901, it examines Victorian attitudes toward industrialization, religion, art and gender.

(S,W) SOC 217H — **3 cr.**
Family Issues and Social Policy
This course examines the conditions, problems and policies associated with work-family issues, divorce, family violence and elder care. Students will use service-learning experience to evaluate these policies from a multicultural perspective, to determine who really benefits from them, and to assess any unintended consequences (positive and negative).

HONR 387H — **2 cr.**
Junior Honors Seminar
Student-led discussions of contemporary non-fictional works chosen for their variety and their importance.

HONR 489H — **1 cr.**
Senior Honors Seminar
Student-led discussions of the content, rationale, and methodology of Senior Honors Projects.

DEPT 385H-389H — **3 cr. each**
Honors Tutorial
An exploration of a topic on an individually directed basis.

DEPT 487H-489H — **6 cr. total**
Honors Project
An independent project of academic or professional nature culminating in an oral defense before a board of three faculty members.

Business Leadership Program

Robert L. McKeage, Ph.D., *Director*

Leadership, the process of persuasion or example by which the members of a group are persuaded to pursue the group's objectives, is the focus of many new programs in education. The Business Leadership Program in the University's Kania School of Management provides selected students with an opportunity to perfect their talents for business leadership. The program includes special sections of key business courses taught from the leadership perspective, leadership seminars, a mentor/internship program, and an independent leadership project.

The key courses are taught with a special emphasis on business leadership by faculty chosen for their exceptional teaching and their interest in the leadership concept. The leadership seminars will help the students assess and perfect their talents for leadership and will put them into contact with many business leaders. Noteworthy among the opportunities are the internships (where the students are placed with business leaders who serve as mentors) and the projects developed and executed by the students to demonstrate their leadership skills. The program will culminate in the students preparing portfolios on the essence of leadership, as derived from participation in the program, and defending their concepts of leadership before a faculty board.

This highly selective program accepts 15 sophomores each spring to begin the two-year curriculum the following fall. Applicants are selected on the basis of the following criteria:

- Leadership experience and/or potential; drawing from the student's record in high

school, college, work history, clubs and activities.
- Student's self-assessment and motivation in applying—how and why this program relates to the student's long-term goals.
- Interests and hobbies.
- Recommendations of teachers, others.
- 3.3 grade-point average (ordinarily); a minimum of a 3.5 grade-point average will be needed for graduation with honors in the program

Course Descriptions

Although three of the first four courses are required of all business students, sections designated by BLDR are restricted to students in the Business Leadership Program.

BLDR 351 3 cr.
Principles of Management
This course covers the key aspects of the management process for decision-making. The focus is the organizational setting in which business leadership is exercised.

BLDR 355 3 cr.
Business Ethics
The individual and social ethics of the major areas of decision-making in business from a leadership perspective.

BLDR 455 3cr.
Policy and Planning
This is the capstone course for all business majors. Concepts and skills developed in the functional areas of accounting, finance, management, marketing and production/ operations are integrated and applied to the top-level management of an organization. Topics include analyzing organizational environment, setting missions and objectives, developing strategies and plans. allocating resources, and designing organizational structures, reward, and control systems. Special emphasis will be given to the role of executive leadership and values in the articulation of a corporate vision and culture, and in the choice of growth and competitive strategies. Intended as a case- and project-oriented course.

BLDR 484 3 cr.
Work as Vocation
This final course in the BLDR sequence provides students with an opportunity to discover their professional "calling." This course is intended to help the graduating students make the transition from the classroom to the "real world," and to integrate the values they inculcated at the University into their work experience. They will examine their strengths, weaknesses, and interests to develop career plans and strategies.

Business Leadership Program Schedule

Third Year
Fall: BLDR 351: Principles of Management I, BLDR 385: Business Leadership Seminar #1
Spring: BLDR 355: Business Ethics, BLDR 386: Business Leadership Seminar #2

Fourth Year
Fall: BLDR 455: Policy & Planning, BLDR 485: Business Leadership Seminar #3
Spring: BLDR 484: Work as Vocation, BLDR 486: Business Leadership Seminar #4, Senior Project

BLDR 385 1 cr.
Self Assessment Business Leadership Seminar #1
Focus is on identifying the characteristics of leadership, self-assessment of personal strengths and weaknesses, and preparation of plan for self-development.

BLDR 386 1 cr.
Empowerment Business Leadership Seminar #2
Focus is on identifying the tasks of the leader and "enabling or empowering" people to achieve the organization's goals

BLDR 485 1 cr.
Mentorship Business Leadership Seminar #3
Student is placed in an organizational setting as a leadership intern to study the leadership of the organization.

BLDR 486 1 cr.
Senior Project Business Leadership Seminar #4
Student proposes, develops and executes a project evidencing a high degree of leadership skills and activity.

Pre-Law Program

The University is justly proud of its tradition in providing students seeking careers in the law with a solid preparation for the demands of legal study and practice. Scranton graduates in all regions of the nation have achieved distinction in virtually every area of the law.

The clearest measure of the strength of the University's Pre-Law Program is the remarkable success its graduates have had in winning admittance to law schools throughout the country. Recent graduates have been admitted

to many prestigious law schools, including Cornell, Georgetown, Penn, American University, Boston College, Catholic University, Dickinson, Fordham, Notre Dame, Pittsburgh, Rutgers, Seton Hall, Temple, Villanova and Widener.

Pre-Law Curriculum

No specific undergraduate major is required for admission to law school; the American Bar Association's statement on Preparation for Legal Education does not recommend any particular group of either majors or individual courses, noting that "the law is too multifaceted, and the human mind too adaptable, to permit such a linear approach to preparing for law school or the practice of law." The ABA statement, however, does describe certain skills and values that are essential to success in law school and to competent practice. These are:

1. **Analytic and Problem Solving skills**, involving critical thinking and the ability to structure and evaluate arguments for and against propositions;
2. **Critical Reading Abilities**, derived from substantial experience in the close reading and critical analysis of complex texts;
3. **Writing Skills**, developed through rigorous practice in preparing and revising original pieces of substantial length;
4. **Oral Communication and Listening Abilities**, based on experience in giving and evaluating formal presentations;
5. **Research and Time Management Skills**, involving the ability to plan a research strategy, to undertake substantial library work, and to organize large amounts of information within a fixed period of time; and, not least of all,
6. a **Commitment to Serving Others and Promoting Justice**, based on significant experience in service projects while an undergraduate.

The skills noted above can be acquired by students majoring or minoring in any discipline that involves intensive reading and extensive writing such as, for example, English, history or political science. At the same time, students who have majored in other areas, including philosophy, languages, management, any of the social sciences, as well as the natural sciences, have enjoyed success in the study and practice of law. Ultimately, the best preparation for law school comes from taking challenging courses from demanding professors.

In addition to these skills and values, the ABA has identified several more specific areas of knowledge that pre-law students should acquire as undergraduates. The University's Curriculum 2000 provides a framework whereby all can be acquired through the General Education requirements applicable to all majors.

- a broad understanding of American history (HIST 110-111)
- a fundamental understanding of political thought and the American political system (PS 130-131)
- a basic understanding of ethical theory (PHIL 210)
- a grounding in economics, especially microeconomic theory (ECON 153)
- an understanding of basic pre-calculus mathematics (MATH 106 or equivalent)
- a basic understanding of human behavior and social interaction (PSYC 110 or SOC 110)
- an understanding of diverse cultures within and beyond the United States (the 6-credit cultural-diversity GE requirement)

In addition to the courses listed above which satisfy general education requirements, certain departments offer courses that can be of particular value to pre-law students and which, depending upon their major, can be taken as electives within either the major or cognate. Such courses include HIST 336 (History of American Law), HIST 337 (British Constitutional and Legal History), PS 311-312 (American Constitutional Law), and WRTG 212 (Writing for the Law).

Pre-Law Internships

Interested students with a grade point average above 3.00 at the time of application may, with the approval of the appropriate dean, receive academic credit for internships served in the offices of either private law firms or various legal agencies such as the district attorney, public defender, or district magistrate. Prior approval of the planned internship is necessary. A minimum of 150 hours work is required for internship credit in PS 280. Application forms for these internships are available from the Registrar's Office.

Pre-Law Advisory Council

A pre-law advisory council headed by Dr. Frank X.J. Homer, Director of Law School Placement, provides continuing advice on course selection, career planning and the law school application process. He is assisted by Ms. Constance E. McDonnell, Associate Director of Career Services, and Dr. Robert F. Hueston, moderator of the student Pre-Law Society, along with faculty members from the departments of Criminal Justice, English, History, Philosophy and Political Science as well as faculty representatives from both The Panuska College of Professional Studies and The Kania School of Management.

Law School Admission Test

Along with a student's undergraduate academic record, the LSAT score is a critical factor in the law-school-admission process. Ordinarily, pre-law students take the LSAT at the end of the junior year or early in the senior year. As a means of assisting University students to score up to their fullest potential on the LSAT, on-campus LSAT workshops are offered at least twice each year. These provide University students with an alternative to costly commercial test-preparation services.

Pre-Medical Program

The success of the University's Pre-Medical Program has been outstanding. Since 1980, the University has placed an average of more than 50 students per year into American schools of medicine, dentistry, optometry, podiatry and veterinary medicine, often in the most prestigious schools in the country.

The University of Scranton offers its pre-medical students unique opportunities in anticipation of changes in healthcare delivery for the twenty-first century. They include a special exposure to primary-care medicine (the practice of family physicians, general internists, and general pediatricians), predicted to be the area of greatest growth in medicine. Students have an opportunity to participate in an undergraduate primary-care externship through the Scranton-Temple Residency Externship Program. In this program, students accompany physicians at Scranton Mercy and Moses Taylor Hospitals to gain exposure to clinical settings in primary-care medicine. Students gain transcript recognition for participation in this externship, as well as a clear view of the profession they seek to enter.

A special opportunity is offered to eight students each year through the Medical Scholars Program, a cooperative program at The University of Scranton and Temple University School of Medicine. Through this program, highly qualified high school seniors are offered early assurance, contingency admission to Temple University School of Medicine.

Moreover, The University of Scranton is one of only six undergraduate institutions participating in the Jefferson Medical College Physician Shortage Area Program (PSAP). This program is designed to recruit and educate medical students who intend to enter family medicine and practice in physician-shortage areas in Pennsylvania. Finally, University of Scranton students are encouraged to participate in programs at the Center for Primary Care at the Penn State College of Medicine, Hershey.

The Pre-Medical Program is supported by a network of hundreds of medical alumni and by an active Medical Alumni Council. The Medical Alumni Council has compiled a directory of physicians who have agreed to serve as resources for information or internship opportunities for University of Scranton students. It also sponsors on-campus programs to which undergraduate students are invited.

Pre-Medical Undergraduate Curricula

Many undergraduate students who intend to apply to health-professions schools choose Biology or Biochemistry as their major. However, students may choose any major, provided that they meet the requirements for entrance to medical, dental, or other health-professions schools.

For students at The University of Scranton, the *minimum* requirements are listed below. All courses must be taken with their corresponding labs.

- BIOL 141-142: General Biology
- CHEM 112-113: General and Analytical Chemistry
- CHEM 232-233: Organic Chemistry
- PHYS 120-121: General Physics

Virtually all medical schools require a year of English literature, and many require a semester or a year of mathematics, including calculus.

Many medical schools recommend that students demonstrate a wide range of interests in their choice both of courses and of extracurricular activities. Volunteer work is strongly recommended by the admissions committees of most health-professions schools, as is course work in ethics, particularly in PHIL 212: Medical Ethics, PHIL 316: American Perspectives on Health Care Ethics, and/or T/RS 330: Biomedical Ethics.

Some medical and dental schools also have specific prerequisites for English, mathematics, or other courses, as listed in *Medical School Admission Requirements*, or *Admission Requirements of U.S. and Canadian Dental Schools.*

The Association of American Medical Colleges recommends that undergraduate students planning to apply to medical school acquire a strong background in the natural sciences, so students should consider courses in biology, chemistry, physics and mathematics beyond the minimum requirements. Students should develop strong oral and written communication skills, and they should complete rigorous courses in the humanities and social sciences. Honors courses and programs, independent study, and/or undergraduate research are also encouraged.

The University offers all applicants to health-professions schools the option of a formal applicant evaluation by the Health Professions Evaluation Committee (HPEC). This committee consists of 19 faculty and administrators representing a wide range of academic disciplines. It is directed by Dr. Mary Engel, University Director of Fellowship Programs and Director of Medical School Placement, who also advises the Health Professions Organization.

All applicants who seek to apply to doctoral-level health professions schools are evaluated on academic record, volunteer and community service activities, extracurricular activities, and demonstrated motivation toward their chosen careers. Students submit documents and request faculty letters of evaluation and are interviewed by two members of HPEC. Through the HPEC interview, students have an opportunity to develop their interviewing skills and receive feedback on their application materials and interviewing performance. The HPEC evaluation package sent to health professions schools provides a comprehensive narrative which describes in depth an applicant's qualifications for advanced study and a career in the health professions.

The University also makes available to students a wide variety of resources in the Health Professions Lending Library; information about materials which students may borrow is available from the Director of Medical School Placement.

Additional Information

Information and copies of publications are also available in the office of Dr. Mary Engel, Director of Medical School Placement, St. Thomas 312. In addition, the student-supported Health Professions Organization Web site at www.scranton.edu/premed provides extensive helpful information for interested students.

Interdisciplinary Programs and Concentrations

Interdisciplinary Courses

Interdisciplinary courses are team-taught courses that vary from semester to semester. They may be used to fulfill appropriate General Education requirements as specified in the course schedule bulletin.

INTD 100 **1 cr.**
Freshman Seminar
Freshman seminars are designed to foster students' successful integration into academic and community life at The University of Scranton. Topics common to all freshman seminars include: the purpose of higher education; time management; the mission of a Jesuit university; academic-development strategies; the role of faculty; University resources; and personal values.

INTD 103 **3 cr.**
(D) The Vietnam Experience
The historical origins of the Vietnam War, including the period of French colonialism and the American intervention; the politics, economics, and military strategy in Vietnam during the war years and today; present relations with China and the USSR. Why were we there and why did we fail?

INTD 104 **3 cr.**
Men's Health
The course will examine the historic, physiologic, social, cultural, emotional and economic

issues affecting men's health. The course explores strategies to assist students to gain information regarding men's health issues, adopt healthier lifestyles, and use health care services appropriately. Health issues related to culture and diversity will also be addressed. Class members will be expected to actively participate in all discussions.

INTD 105 3 cr.
Great Lives: Images on Stage
An examination of the often contrasting impressions of historical personalities, as they are portrayed in plays and films and as they appear to historians. Historical figures to be considered include Caesar, Richard III, Thomas More, Lincoln and Churchill.

INTD 108 3 cr.
Health and Legal Implications of Chemical/Drug Abuse
A team-taught course that deals with the neurophysical, health, and legal implications of alcohol/drug abuse, viz: its biochemical effects and aspects, its legal and social consequences, and its health and lifestyle implications.

INTD 209 3 cr.
(D) The Holocaust
An exploration of the cataclysmic event in Jewish history known as the Holocaust. The course will examine the subject from the perspective of various academic disciplines – historical, sociological, philosophical, artistic, and literary, among others – and will include a field trip to the Holocaust Museum in Washington, D.C.

INTD 211 3 cr.
(D,E) HIV/AIDS: Biological, Social and Cultural Issues
(Prerequisite: C/IL 102 or equivalent) Study of the biology of HIV and AIDS, impact of the epidemic on various social groups and countries. The epidemiology of the disease and the response of health-care systems and governments. Opportunity for American Red Cross certification in basic HIV facts and eligibility for HIV Instructor certification will be included as part of the course. Open to all majors.

INTD 224 3 cr.
(Q,W) Science, Decision Making and Uncertainty
A study of decision-making as it relates to scientific and public policy matters. The course covers philosophical, mathematical and psychological aspects of decision- making in the face of uncertain evidence. Topics include the nature of scientific evidence; probabilistic evidence and the law; uncertainty and medicine; and other issues such as nuclear power, waste disposal, and strategic nuclear planning.

INTD 333 3 cr.
The Bible in Image and Text
This team-taught course is a study of the interpretation of major biblical stories and figures in the Christian theological tradition and in art history. The marriage of Christian text and image is a natural and long-lived one; it provides an exciting way to integrate knowledge of various major themes such as creation and last judgement, and of many great biblical figures, such as Moses and Christ.

NSCI 102 3 cr.
Science and Society
This course attempts to show how the sciences, particularly the behavioral sciences, impact both positively and negatively on society. Issues dealt with include the nature of science, similarities and differences between the scientific disciplines, the impact of science on the concept of free will, and the philosophical and moral implications of psychological testing, socio-biology, and Skinnerian radical behaviorism.

NSCI 201 3 cr.
(E) Science and the Human Environment
A brief study of the effects of technological, scientific and industrial progress on the air, land, and water resources of the human environment. Problems in each of the resource areas will be discussed in detail.

Catholic Studies Program

Kathleen C. Dwyer, Ph.D., *Director*

The Catholic Studies Program seeks to provide every student with the opportunity to engage the Catholic tradition in a deeper and broader way than the typical program of studies can provide. Accordingly, this program casts a wide net over what the Catholic tradition and heritage are and how they interface with human endeavor. Catholic Studies is a specialization built around a multi-disciplinary core that provides a systematic way of integrating the many facets of Catholic tradition with various academic disciplines. Because Catholic tradition is integrally linked to virtually every subject, it can provide a natural integrative coherence for nearly all majors and areas of studies. Thus the CSP provides a good means

of organizing many general-education requirements into a unified concentration; it is an attractive academic program for rounding out a student's Catholic higher education.

The Catholic Studies Program consists of both inter- and uni-disciplinary courses that provide opportunities to study the Catholic heritage in the ancient and the contemporary Church alike, and give access to the rich forms in which it has been expressed in literature, art, architecture, music, history, philosophy, science, etc. Catholic Studies welcomes all interested students whether or not they are Catholic. It is compatible with all majors. Ideally, students will enter in their freshman year, but it is possible for students to enter in their sophomore year. Courses in the program will meet either general education, major, minor or cognate requirements. All non-CSP students are welcome in any course(s) in the program, but CSP students are given enrollment preference. Honors tutorials are encouraged. SJLA students are welcome.

All courses taught in the Catholic Studies Program will seek to promote appreciation of the Catholic tradition by being faithful to the Church's apostolic teaching. Courses will also encourage students (1) to integrate faith and academics; (2) to study the Catholic Tradition in an intellectually rigorous way; (3) to assess human intellectual activity and experience in the light of the Catholic faith; and (4) to examine the experience of Catholics in history, politics, various social groups, philosophical and religious movements, and/or science and technology.

The concentration consists of 21 credits: 6 are required; the other 15 are electives. T/RS 184C must be taken; one semester of Christian Classics is also required. Students may build their studies on their majors and interests. Students are invited to petition for readers that meet program standards. Students may likewise seek permission for courses not cross-listed to count for credit, provided they are eligible to do significant Catholic Studies work in them.

Catholic Studies Electives

Students will choose five courses from a list that may be obtained from the director, and which is also available from the Registrar's Office.

Required Courses

T/RS 184C 3 cr.
(P,W) Inside the Catholic Tradition
This introduction to Catholic Tradition will study its scope, depth, and on-going development, reception, and characteristics. Topics covered include Faith and Revelation, the intercommunion of Scripture and Tradition, the role of Magisterium, and the development of doctrine. Selected readings are taken from important conciliar texts and theologians.

INTD 201C-202C 6 cr.
(P,W) Christian Classics I-II
Each semester of this CSP core course provides a structured opportunity for reading in common some of the major Christian works of literature and spirituality with which every educated Catholic should be familiar. Important Catholic books and significant works of some great men and women who have shaped Christian thought and life will be read and discussed.

Environmental Studies Concentration

Leonard W. Champney, Ph.D., Political Science; John R. Kalafut, M.S., Physics and Electrical Engineering; Edward M. Scahill, Ph.D., Economics/Finance; *Program Co-Directors*

The Environmental Studies Concentration introduces students to the scientific, economic, legal, political and philosophical dimensions of environmental issues, both within the United States and globally. The concentration is open to students from any major and may be of particular interest to students planning careers in government, law or business.

Courses for the Environmental Studies Concentration are drawn from eight departments in The College of Arts and Sciences and The Kania School of Management. Many of these courses may also be used for general education requirements. To enroll, students should consult one of the co-directors of the concentration. The concentration consists of eight courses:

PHYS 106	(E) Energy and the Environment
NSCI 201	(E) Science and the Human Environment
CHEM 202	(E) Global Change
ECO 103	(S) Economics of Environmental Issues

PS 230 (S)	Environmental Policy
MGT 210	Business and the Environment
T/RS 316	(P,W) God and the Earth
PHIL 213	(P) Environmental Ethics

In addition, MATH 201, Algebra and Environmental Issues, is recommended. This course fulfills the quantitative reasoning requirement in the general education curriculum, and is also a writing intensive course.

Natural Science majors who wish to pursue the Environmental Studies Concentration may complete the three natural science courses using any combination of the natural science courses listed above and/or the following courses:

CHEM 340	Environmental Chemistry
CHEM 342	Environmental Toxicology
CHEM 344	Environmental Geochemistry
BIOL 273	Marine Biology
BIOL 371	Ecology
BIOL 471	Applied Ecology
BIOL 473	Estuarine Ecology

Forensic Health Concentration

Mary Muscari, Ph.D., *Director*

Open to all undergraduate students, the Forensic Health Interdisciplinary Concentration is designed by the Departments of Nursing and Criminal Justice to advance students' interest in the field of forensic health. Forensic Health is the application of the health-related sciences to public or legal proceedings and the scientific investigation and treatment of trauma and/or death of victims and perpetrators of abuse, violence, criminal activity, and traumatic accidents. Forensic health care professionals work with a variety of clients, including victims intrafamilial violence and sexual assault, criminal offenders, and juvenile delinquents. Career settings include emergency departments, psychiatric facilities, correctional facilities, schools, community health, and legal consulting in the court system.

Students interested in this concentration are required to complete four 3-credit courses and one 3-credit elective course for a total of 15 credits.

Required Courses

PSYC 110 is a prerequisite to NURS 344 and 345. CJ 110 is recommended, but not required, prior to NURS 344 and 345 and the Criminal Justice electives.

CJ 110	Introduction to Criminal Justice
NURS 344	Forensic Health Care of Victims
NURS 345	Forensic Health Care of Perpetrators
PSYC 110	Fundamentals of Psychology

Elective Courses (choose one)

Students are required to consult the Forensic Health Interdisciplinary Concentration Director before choosing their elective.

CJ 213	Criminology
S/CJ 214	Juvenile Delinquency
S/CJ 218	The American Court System
S/CJ 220	Penology: The American Correctional System
CJ 230	Crime Prevention
CJ 237	The Investigative Process
S/CJ 324	Victimology

Human Development Program

James P. Buchanan, Ph.D., *Director*

This program offers all students, especially those majoring in the behavioral and social sciences, the opportunity to develop a multidisciplinary focus in human development. The academic aims of the concentration are to provide an understanding of:

1. Both normal and exceptional development of humans as biological and psychological organisms;
2. The relationship between individuals and family/social environment; and
3. The means to enhance human development, including a field experience in a human-development agency.

The 30-credit Human Development concentration is administered by an interdisciplinary board of faculty from the Psychology, Sociology, and Human Resources departments. Students interested in careers and graduate programs in human development should contact the director for more information on course choice and on integrating the concentration with various majors. Students who complete this concentration will have it noted on their transcripts. The Human Development concentration requires the following:

1. PSYC 221: Childhood & Adolescence
2. PSYC 222: Adulthood & Aging or GERO 110: Introduction to Gerontology
3. PSYC 225: Abnormal Psychology
4. HS 241: Case Management and Interviewing

5. PSYC 360: Clinical Psychology or HS 242: Counseling Theories or SOC 115: Introduction to Social Work
6. BIO 201: Anatomy and Physiology or BIO 202: ABC's of Genetics or PSYC 231: Behavioral Neuroscience
7. Three of the following courses with at least one course from the cultural-diversity group of: SOC 234: Cultural Anthropology, SOC 224: American Minority Groups, SOC 210: Marriage and the Family, HD 335: Exceptional Child, HD 224: Family Development, HS 333: Multiculturalism in Human Services, PSYC 237: Psychology of Women, or S/CJ 214: Juvenile Delinquency; and at least one course from the applied skills group of: EDUC 222: Educational Psychology, EDUC 140: Early Childhood Education, SOC 118: Child Welfare, HS 341: Group Dynamics, HS 323: Psychiatric Rehabilitation, HD 234: Marital and Family Therapy, HS 334: Marital and Family Counseling, or PSYC 284: Behavior Modification.
8. PSYC 480: Field Experience in Clinical Psychology or HS 380: Internship in Human Services or SOC 480: Internship in Social Work.

Course Descriptions

HD 224 3 cr.
Family Development
(Prerequisite: PSYC 110) This course will explore the reciprocal interactions among children and parents as related to the development of all individuals in the family. Topics covered include the roles of family members, parenthood and marriage, parenting at specific developmental stages, families with single parents, families with exceptional children, and child abuse.

HD 234 3 cr.
Marital and Family Therapy
(Prerequisite: PSYC 110; recommended: PSYC 225) An introduction to the theory, research, and practice of couples-counseling and family therapy. Topics include family dysfunctions, assessment methods, treatment approaches, innovative techniques, and research findings. (Also listed as HS 334.)

HD 335 3 cr.
Exceptional Child
(Prerequisites: PSYC 110, PSYC 225) This course will consider atypical social, emotional, and mental development during childhood and adolescence. Topics include mental retardation, intellectual giftedness, learning disabilities, psychopathology of childhood and adolescence, and conduct disorders.

Italian Studies Concentration

Virginia A. Picchietti, Ph.D., *Director*
Josephine M. Dunn, Ph.D., *Co-Director*

The Italian Studies Concentration is designed to advance students' understanding of diverse aspects of Italian culture and society. The concentration is open to all majors and consists of both interdisciplinary and single-discipline courses drawn from various academic departments at the University. It encourages both breadth and depth in the study of Italian culture and society; its goal is to cultivate a broadly based knowledge of Italian civilization and its contributions to the specific fields comprising the concentration. At the same time, courses in the concentration will fulfill general education requirements with an emphasis on cultural diversity and on a writing-intensive curriculum.

The curriculum is designed to accomplish the following: provide a focused study of Italian culture and society; develop oral and written skills; and develop practical skills applicable to trips to Italy and in career fields. The concentration requires the successful completion of seven courses, three of which are required courses and four of which are to be chosen from an approved list of electives. Students will be required to complete successfully two courses of Italian language as well as the Italian Studies Seminar. Students will enter the language level they can master (determined in consultation with the director and the language department), and will fulfill the language requirement by successfully completing two of the approved language courses.

Required Courses

Students will choose two language courses (at appropriate level) and seminar.

ITAL 101-102 Elementary Italian
ITAL 211-212 Intermediate Italian
ITAL 311-312 Advanced Italian Composition and Conversation

Italian Studies Seminar (a specific topics course whose content varies according to the interests of students and faculty. Offered every two years.)

Elective Courses (choose four)

ENGL 431	Dante's *Divine Comedy*
ITAL 207	Italian Women Writers
ITAL 208	Envisioning Italy from Novel to Film: The Case of Neorealism
ITAL 209	Italian Cinema: From Origins to Present
ARTH 214	Renaissance Art and Architecture: 1250-1500
ARTH 216	Michelangelo and His World
ARTH 217	Leonardo Da Vinci
ARTH 218	The Age of Rembrandt
ARTH 384	Special Topics in Art History *(if applicable)*
MUS 217	Opera
MUS 284	Special Topics in Music History *(if applicable)*
HIST 240	Modern Italy
HIST 323	The Renaissance
PHIL 221	Medieval Philosophy
PHIL 222	Modern Philosophy I
NSCI 103	The Ascent of Man

Latin American Studies Concentration

Lee M. Penyak, Ph.D., *Director*

The Latin American Studies Concentration is designed to advance students' awareness and understanding of Latin America. It seeks to provide both broad, general knowledge of the entire Latin American region, and in-depth knowledge of specific countries, regional groupings of countries, and cultures both dominant and marginal. The concentration is open to all majors and it consists of courses from a variety of disciplines with a primary focus on Latin America. These courses fulfill general education requirements in the Humanities area (Foreign Languages and History), the Social Sciences area (Political Science), and some of them also carry cultural diversity and writing intensive credit. Supporting courses may fulfill general education requirements in other areas as well.

The Latin American Studies Concentration is an attractive complement to many existing majors. Related fields include foreign languages, international business, international language/business, international studies, history, political science, theology, philosophy and sociology. Some related professions or careers include law, government, non-governmental organizations, non-profit organizations, banking and teaching.

Core and supporting courses are listed below. Others will be added as they are developed.

Language (4.5-6 credits)

SPAN 311-312* or PORT 210†

History (6 credits)

HIST 125-126	Latin American History
HIST 213	Gender and Family in Latin America
HIST 215	Church & Society in Latin America
HIST 327	The African Experience in Latin America

Politics (6 credits)

PS 219	Survey of Latin American Politics
PS 3XX	Topical or country-specific courses

Supporting Courses (6 credits)

SPAN 320	Introduction to Literature
SPAN 314	Topics in Latin American Culture & Civilization
SPAN 331	Spanish American Literature
SPAN/PS 295	Contemporary Mexican Culture and Language
T/RS XXX	Liberation Theologies
PHIL XXX	Latin American Thought

Peace and Justice Studies Program

Stephen J. Casey, M.A., *Coordinator*

The Synod of Bishops of the Roman Catholic Church (1971) reported that "actions on behalf of justice and participation in the transformation of the world fully appear to us as a constitutive dimension of the preaching of the Gospel…" The 32nd General Congregation of the Society of Jesus (1974-75) established a pedagogical norm for its own institutions of higher education when it determined that the practice of faith was inextricably linked to the promotion of justice. In this vein the University's Peace and Justice Program was instituted to bring academic studies, including classes, community service and interdisciplinary research, into the process of building a more just and thus more peaceful society.

* *At this level or higher; intermediate Spanish (211-212) is a prerequisite for 311.*

† *Elementary Portuguese is taught intensively; only 4.5 credits are required.*

The Peace and Justice Concentration will be an attractive complement to the academic programs of students planning careers in law, international relations, human services, ministry and teaching – to name only the most obvious. However, any students who have a personal interest in the problems of peace and justice, regardless of their career goals, can benefit from its multi-disciplinary concentration of courses. It is open to majors from all the undergraduate schools of the University. Eight courses (24 credits) must be taken by students in order to have "Peace and Justice Concentration" added to their transcript. Courses may be taken as part of the cognate requirement (with permission of the chairperson of the major) or as part of the general education requirements.

The following courses will provide students with the opportunities to reflect critically on the social, economic, psychological, political and structural issues impeding the establishing of a just and peaceful society.

A. Requirements in **Theology** (any two of the following):

T/RS 231	Social Ethics
T/RS 232	John Paul II and Catholic Social Thought
T/RS 234	Twentieth-Century Peacemaker
T/RS 236	Prophets & Profits
T/RS 237	Politics: A Christian Perspective
T/RS 239	Money and Power in the Biblical Tradition
T/RS 313	Faith and Justice in the Prophetic Tradition
T/RS 331	God and the Earth
T/RS 332	Jesus and the Moral Life
T/RS 334	Church and Contemporary Social Issues

B. **Electives** (any five courses listed below can be counted; others may be included with approval from the program coordinator):

CHEM 104	Science and Society
CHS 338	Poverty, Homelessness & Social Justice
COMM 220	Responsibility in Communication
COMM 311	Political Communication
ECO 462	Urban and Regional Economics
ECO 465	Development Economics
ENLT 226	Novels by Women
ENLT 228	Race in Anglo-American Culture 1600-1860
ENLT 348	Colonial & Post-Colonial Fiction
GEOG 217	Cultural Geography
HIST 211	The Third World
HIST 216	Race in American History
HIST 224	Ethnic and Racial Minorities in NEPA
HS 333	Multiculturalism in Human Services
INTD 209	The Holocaust
LIT 207	Literature of American Minorities
MGT 473	Organizational Social Responsibility
NSCI 201	Science and the Human Environment
PHIL 213	Environmental Ethics
PHIL 218	Feminism: Theory & Practice
PHIL 227	Political Philosophy
PHIL 410	Philosophy of Culture
PHYS 106	Energy and the Environment
PS 227	Women, Authority and Power
PS 216	Women's Rights & Status
PSYC 220	Social Psychology
S/CJ 210	Law and Society
SOC 116	Community Organization
SOC 224	American Minority Groups
SPAN 314	Topics in Latin American Culture & Civilization

C. Integrative **Capstone Course** (required in junior/senior year):

T/JP 310 **3 cr.**

Toward a Just and Peaceful World

This course will reflect on the various issues and problems raised by peace and justice study. It will consider the relationship of religion, moral philosophy and the social/political concerns embraced in the quest for a human world order. Faculty from several disciplines will make presentations. Each student will write a paper from the perspective of his/her major area of concentration.

Women's Studies Concentration

Sharon M. Meagher, Ph.D., *Director*

The Women's Studies Concentration consists of courses that examine women's experiences and the ways gender-related issues affect human lives and cultures. Faculty and students analyze the ways gender roles and images, and assumptions about gender, are reflected in art, business, literature, law, philosophy, public policy, religion, language, history, the sciences, and their own lives. At the same time many Women's Studies courses will

address issues of race, class, ethnicity, and age that intersect with gender-related issues.

Women's Studies courses focus on women's experiences in history, society, and culture, and examine their reactions to such experiences; examine institutional structure/modes of authority/analysis of power, especially considering their implications for women; and incorporate one or more feminist analyses/scholarly works (recognizing that there are multiple, and even conflicting, feminist perspectives).

Women's Studies seek to promote critical thinking, intellectual growth, and a self-awareness useful to all students. It is an attractive academic supplement to the programs of students planning careers in government, law, business, human services, ministry, and teaching – to name but a few.

Courses for the Women's Studies Concentration are drawn from all the colleges at the university and are open to students in all majors. (To enroll, students must see the Director of Women's Studies.) The concentration consists of six courses including one required core course. The student may take PHIL 218 or SOC 215 as the required core course. The remaining five courses are chosen across several departments by the student from cross-listed courses approved by the Women's Studies Committee. Many of the cross-listed Women's Studies courses also fulfill major, minor, cognate, and/or general education requirements.

Students may seek permission from the Women's Studies Committee to take no more than one reader for Women's Studies credit, subject to the usual rules governing readers. Students may also petition to substitute no more than one course not cross-listed with Women's Studies, if the course has sufficient Women's Studies content and the student is able to do a significant project/assignment on a Women's Studies topic.

Women's Studies Courses

Some of the listed courses have prerequisites; please consult departmental description.

ARTH 210	(CA,D) Women in the Visual Arts
COMM 229	(D) Gender and Communication
ENLT 225	(CL,D,W) Writing Women
ENLT 227	(CL,D,W) Frankenstein's Forebears
ENLT 226	(CL,D) Novels by Women
ENLT 228	(CL,D,W) Race in Anglo-American Culture 1600-1860
FREN 430*	French Women Writers
HIST 213	(CH,D) Gender and Family in Latin America
HIST 238	(CH,D) History of American Women I
HIST 239	(CH,D) History of American Women II
ITAL 207	(CL,D,W) Italian Women's Writing in Translation
HS 337	(D) Counseling Girls and Women
LIT 207	(CL,D,W) Literature of American Minorities
NURS 111	(D) Women's Health
PHIL 218	(P,D) Feminism: Theory and Practice
PHIL 326	(P,D) Advanced Topics in Feminist Theory
PHIL 331	(P) Feminist Philosophy of Science
PS 216	(D) Women's Rights and Status
PS 227	(D) Women, Authority and Power
SOC 215	Feminism and Social Change
SOC 217	(D) Family Issues and Social Policies
SPAN 430*	Hispanic Women Writers
T/RS 315	(P,D) Women in Christianity
T/RS 319	(P,D)Women's Spiritual/ Autobiographical Writings
WOMN 380-81	Women's Studies Internship
WOMN 429	Special Topics

Course Descriptions

WOMN 380-81 **3 cr.**
Women's Studies Internship
(Prerequisites PHIL 218, or SOC 215, or permission of Women's Studies Committee)
Designed to broaden the educarional experience of students by providing practical experience for them in various non-profit and orher organizations that deal primarily with women's issues or women clients. Students will ordinarily be expected to write a reflection paper. Supervision by faculty members and agency supervisor.

** Taught in the original language.*

Aerospace Studies (Air Force Reserve Officer Training Corps)

Lt. Col. Donna Lynn Smith, Chairperson

The Air Force Reserve Officer Training Corps (AFROTC) program at Wilkes University permits students attending The University of Scranton to earn commissions as officers in the United States Air Force while pursuing a University degree. Students may enroll in either the four-year or two-year programs. Aerospace Studies courses are held on the campuses of Wilkes University, Bloomsburg University and King's College.

The four-year program permits students to enter the AFROTC program in freshman or sophomore year. (Students with three years remaining until graduation may enroll concurrently in the freshman and sophomore Aerospace Studies courses and can complete the four-year program in three years.)

The two-year program is available for students (including graduate students) who have at least two years remaining until graduation. Students interested in enrolling in the two-year program must apply as early as possible in their sophomore or junior year. Students should call 1-800-945-5378, ext. 4860, for more information.

General Military Course (Four-Year Program Only)

The first two years of the four-year program constitute the General Military Course (GMC). GMC courses are open to any University student. Students enrolling in these courses do not incur any military service obligation. (Exception: Air Force scholarship recipients incur a commitment at the beginning of their sophomore year.) The GMC curriculum consists of four 1-credit Aerospace Studies courses, plus a non-credit leadership laboratory each semester, which introduces students to U.S. Air Force history and environment, customs, courtesies, drill and ceremonies, and leadership skills.

Professional Officer Course (Two- and Four-Year Programs)

The final two years of the four-year program comprise the Professional Officer Course (POC). It consists of four 3-credit Aerospace Studies courses, plus a non-credit leadership laboratory each semester. Cadets earn a $250-$400 per-month, tax-free subsistence allowance during the academic year and incur a military obligation. To be accepted into the POC, students must pass a physical examination and an officer-qualification test and must meet certain academic standards. Four-year cadets must also complete a four-week field-training program; two-year applicants must complete a five-week field training program, both of which are administered the summer before POC entry. In addition, all POC cadets must complete a course in mathematical reasoning prior to being commissioned.

Uniforms

The U.S. Air Force supplies all uniforms, equipment, and textbooks required for AFROTC. All cadets are required to pay a nominal initial deposit which will be refunded when the cadet returns all uniform items in satisfactory condition at the completion of (or withdrawal from) the AFROTC program.

Scholarships

The U.S. Air Force offers many one- to five-year full and partial scholarships for which qualified students may compete, if they enroll in AFROTC. All scholarship awards are based on individual merit, regardless of financial need, with most scholarship recipients determined by central selection boards. Scholarship-selection boards for students already in college are held each year. Since scholarship applicants must meet certain academic, physical-fitness and medical requirements to be considered by the scholarship boards, they should contact the Aerospace Studies department early to apply. All AFROTC scholarship recipients entering (or transferring to) The University of Scranton receive free room.

Commissioning

All students who satisfactorily complete the POC curriculum requirements are commissioned as second lieutenants in the U.S. Air Force, and will serve on active duty in a career specialty they have chosen, consistent with USAF needs.

For additional information, or if you have specific questions about the Air Force Reserve Officer Training Program, contact the Aerospace Studies Department, at 1-800-945-5378, extension 4860, or at http://wilkes1.wilkes.edu/~afrotc.

Saint Pius X Seminary

Faithful to the vision of the National Council of Catholic Bishops' document, *Program for Priestly Formation,* the Diocese of Scranton enjoys a cooperative arrangement with the University to enable seminarians to prepare for the intensive study of theology beyond the undergraduate level. Men who are seriously discerning the possibility of a vocation to the diocesan priesthood reside together in community at Saint Pius X Seminary in Dalton. Seminarians share in communal celebration of the liturgy, deepen their own prayer lives through individual spiritual direction, undertake practical apostolic service, and gain insight into the daily life of a priest. On campus, seminary students fulfill a Philosophy major (30 credits) in the University's College of Arts and Sciences and study a range of theological topics (18 credits) to provide a solid foundation for advancement to major seminary. In addition, seminarians pursue courses in history and languages, as well as electives that will further enrich their undergraduate curriculum so that candidates for priesthood possess an intellectual formation truly reflective of the liberal arts tradition. While seminarians must enroll in general education courses required of all undergraduates, in addition to the seminary curriculum, they also possess the flexibility to develop a concentration, that is, a minor or double major, in another field of study that appeals to their personal interests. Seminarians are encouraged to avail themselves of the breadth of educational opportunities available to them at the University campus.

Students accepted into seminary formation who have already earned a bachelor's degree or who undertake college studies at a non-traditional age enter the University's Dexter Hanley College, which aims to accommodate the particular needs of the non-traditional college student. Seminarians in this category who have not yet obtained a college degree follow the typical seminary curriculum toward a bachelor's in Philosophy. Those who possess a degree complete a two year pre-theology program focusing on the philosophy and theology prerequisites necessary to begin advanced theological study in major seminary.

Saint Pius X Seminary is operated by the Diocese of Scranton under the direction of the Most Reverend James C. Timlin, D.D., the Bishop of Scranton. The seminary formation faculty consists of priests of the Diocese; however, the seminary program serves students from beyond Northeastern Pennsylvania, including the Archdioceses of Baltimore and Washington.

For more information, contact Monsignor David Bohr, S.T.D., at (570) 563-1131.

Specific Course Requirements

Seminarians in the *four-year college program* normally major in Philosophy and are expected to take the following courses in fulfillment of the general requirements of the Philosophy Department and St. Pius X Seminary. Seminarians enrolled in the *two-year pre-theology program* are required to take the courses listed below that are marked by an asterisk (*):

WRTG 107	Composition
COMM 100	Public Speaking
C/IL 102/102L	Computing and Information Literacy
PHIL 120	Introduction to Philosophy*
PHIL 210	Ethics*
PHIL 215	Logic
PHIL 220	History of Ancient Philosophy*
PHIL 221	History of Medieval Philosophy*
PHIL 222	Modern Philosophy*
PHIL 310	Epistemology*
PHIL 311	Metaphysics*
PHIL 330	Fate, Destiny, and Dignity
PHIL 434	Issues in Philosophy and Theology*
T/RS 121-122	Theology I-II*
T/RS 214C	Inside the Catholic Tradition*
T/RS 215	The History of Christian Theology
T/RS 222	Introduction to Liturgical Theology*
T/RS 230	Moral Theology*
LAT 111-112	Elementary Latin*
SPAN 101-102	Elementary Spanish
GRK 111-112	Elementary Greek
INTD 201-202C	Christian Classics

The University of Scranton General Education Curriculum

All students at The University of Scranton have the opportunity to become liberally educated in the Ignatian tradition. This liberal education will include the development of general skills and skills in the major. It will also include opportunity to develop both depth and breadth in the major, the cognate, and in the areas of natural science, social/behavioral science, humanities, philosophy, and theology. Within the disciplines listed above, students will also take at least two courses that are writing-intensive and two courses with a strong cultural diversity component. The University's approach to general education follows the outline below. To follow that outline, it helps to first understand how courses fulfilling general education requirements are designated.

Designation of Courses Fulfilling General Education Requirements

Courses that fulfill general education requirements as described in the outline below can be identified in catalog and course bulletin listings by a letter code in parentheses preceding the course title:

- Q Quantitative Reasoning
- CH Humanities/Culture: History
- CL Humanities/Culture: Literature
- CA Humanities/Culture: Arts
- CF Humanities/Culture: Foreign Languages
- P Philosophy or Theology/Religious Studies
- E Natural Science
- S Social/Behavioral Science
- W Writing-Intensive
- D Cultural Diversity

Courses having more than one letter code indicates that the course satisfies multiple general education requirements, reducing overall requirements; e.g., (CH,W) satisfies both a Humanities/Culture: History and a Writing-Intensive requirement.

Outline of General Education Requirements

Skills Acquisition

Public Speaking: One course, 3 credits

COMM 100 Public Speaking
PHIL 217J The Trivium

Basic Composition: One or two courses, 3-6 credits

WRTG 105 & 106 College Writing I & II
WRTG 107 Composition

Computing/Information Literacy: One course and laboratory, 3 credits

C/IL 102/102L Computing and Information Literacy
C/IL 104 Computing and Information Literacy for Business (a focused variant of C/IL 102/102L with an emphasis appropriate for students with majors in The Kania School of Management)

Writing-Intensive Requirement (W): Two courses, variable credit*

One of these courses should be in the major program of study. Writing-intensive courses may also fulfill other major, cognate and/or general education requirements.

Quantitative Reasoning (Q): One course, 3 credits*

A mathematically based course as recommended by the major or chosen by the student in consultation with an advisor.

Subject Matter Mastery

The Human Person and God

- Theology/Religious Studies: Two courses, 6 credits
  T/RS 121 Theology I
  T/RS 122 Theology II
- Philosophy: Two courses, 6 credits
  PHIL 120 Introduction to Philosophy
  PHIL 210 Ethics
- Theology/Philosophy Elective (P): One course, 3 credits*

** A list of eligible courses to fulfill general education requirements is available through the academic advising centers, the deans' offices, the Office of the Registrar and online at www.scranton.edu/academics/gelist.shtml. Not all courses are offered every registration cycle.*

General Education Summary

Subject	*Credits*	*Courses*
Freshman Seminar	1	INTD 100
Physical Education	3	Courses approved as PHED activity classes[1]
Writing	3 or 6	WRTG 107 or (WRTG 105 and 106 for ADP only)
Public Speaking	3	COMM 100
Computing Information Literacy	3	C/IL 102 and 102L or 104
Quantitative Reasoning	3-4	Courses designated with (Q)[1]
Theology/Philosophy	15	T/RS 121 and 122, PHIL 120 and 210 and approved T/RS or PHIL Elective (P)
Natural Science	6-8	Courses designated with (E)
Humanities History Literature Foreign Language Art/Music/Theater	12 total 0-6 0-6 0-6 0-3	6 credits in one area: History (CH), Literature (CL), or Foreign Language (CF). 6 additional credits from any of the remaining humanities area, but no more than 3 from Art/Music/Theatre area (CA).
Social/Behavioral Science	6	Courses designated with (S)
Writing Intensive	3-6	Two courses designated (W); one should be in the major[2]
Cultural Diversity	6	Two courses designated with (D)[2]
Electives	12	Any subject except PHED activity classes
Total Credits	77-85 based upon major and credit value of courses	

[1] *Requirement may be satisfied by exemption exam.*

[2] *Writing-intensive and cultural diversity courses may also satisfy other requirements in the general education curriculum reducing the total number of credits required.*

Nature

- Natural Science (E): Two courses, 6-8 credits*

Two courses in natural or physical sciences are recommended by the major or selected by the student after consultation with their advisor.

Culture

- Humanities (CA, CF, CH, CL): Four courses, 12 credits*

Courses in the humanities are recommended by the major or selected by the student after consultation with the advisor. Students must earn 6 credits in one humanities field: foreign language (CF), history (CH) or literature (CL). The remaining 6 credits must come from the other humanities fields, with no more than 3 credits coming from the fine arts (CA).

Integration of Individual and Community

Personal

- First Year Experience: One course, 1 credit
  INTD 100: Freshman Seminar
- Physical Education: Three or more courses totaling 3 credits*

Social

- Social or Behavioral Science (S): Two courses, 6 credits

Two courses in social or behavioral sciences as recommended by the major or selected by students after consultation with their advisors.

- Cultural Diversity (D): Two courses, 6 credits

Two courses with strong cultural diversity content are required. These courses may also fulfill other major, cognate and/or general education requirements.

* *A list of eligible courses to fulfill general education requirements is available through the academic advising centers, the deans' offices, the Office of the Registrar and online at www.scranton.edu/academics/gelist.shtml. Not all courses are offered every registration cycle.*

Electives

Four courses, 12 credits. Students are encouraged to use their general education electives to add minors or second majors where possible. For some majors, specific courses have been recommended in the GE elective area by the home departments. Where no specific recommendations have been made by the home department, any course (other than PHED activity courses) may be used as a free elective. Please refer to the department course listings in the catalog for complete course descriptions. If you have a question about how a specific course satisfies a requirement, please contact your advisor, academic advising center, dean's office or registrar's office.

Recommended General Education Course Sequence

First Year

Speech: COMM 100

Writing: WRTG 107 or PHIL 217J or WRTG 105 and 106

Computer Literacy: C/IL 102/102L or C/IL 104

Quantitative Reasoning (designated with Q)

Freshman Seminar: INTD 100

First and Second Year

Philosophy: PHIL 120-PHIL 210

Theology/Religious Studies: T/RS 121-122

Humanities (designated with CH, CL, CF or CA)

Natural Science (designated with E)

Social/Behavioral Science (designated with S)

Physical Education

Second and Third Year

Electives: Students should begin the 12 credits of free electives that are required.

Philosophy or Theology elective (designated with P): Most students will not have had the opportunity to complete all of the GE requirements listed under First and Second Year and, therefore, will attend to these requirements in the third and even the fourth years. Students are advised to have fulfilled some of their cultural-diversity and writing-intensive course requirements during this time.*

Fourth Year

Finish GE requirements that have not been completed by the end of the third year, including the writing-intensive and cultural diversity requirements.

** A list of eligible courses to fulfill general education requirements is available through the academic advising centers, the deans' offices, the Office of the Registrar and online at www.scranton.edu/academics/gelist.shtml. Not all courses are offered every registration cycle.*

Options for Undeclared Freshmen

Students who are not yet ready to declare a major have the option of selecting one of three general areas of study – CAS Common Curriculum, KSOM Business Area and CPS Common Curriculum – with the particular major to be determined by the end of the freshman year.

CAS Common Curriculum – First Year

Undecided students who are interested in exploring one of the majors offered in the College of Arts and Sciences may enroll in the CAS Common Curriculum program. Students in this program take a combination of freshman-level General Education courses and courses in potential majors. Specific courses are chosen in consultation with an academic advisor. In addition, CAS Common Curriculum students take a Freshman Seminar designed to help them make informed decisions about their majors. All CAS Common Curriculum students should take at least two potential major courses each semester of their freshman year.

	Descriptive Title of Course	*Fall Cr.*	*Spr. Cr.*
GE BASIC SKILLS	Public Speaking/Composition/Computer Literacy	3	3
GE PHIL or T/RS	Theology I or Intro to Philosophy	3	3
MAJOR	Select from intro classes of any major	3-4.5	3-4.5
MAJOR	Selecr from intro classes of any major	3-4.5	3-4.5
MAJOR	Select from intro classes of any major	3-4.5	3-4.5
INTD 100	Freshman Seminar	1	
PHED	Physical Education		1
		16-18	16-18

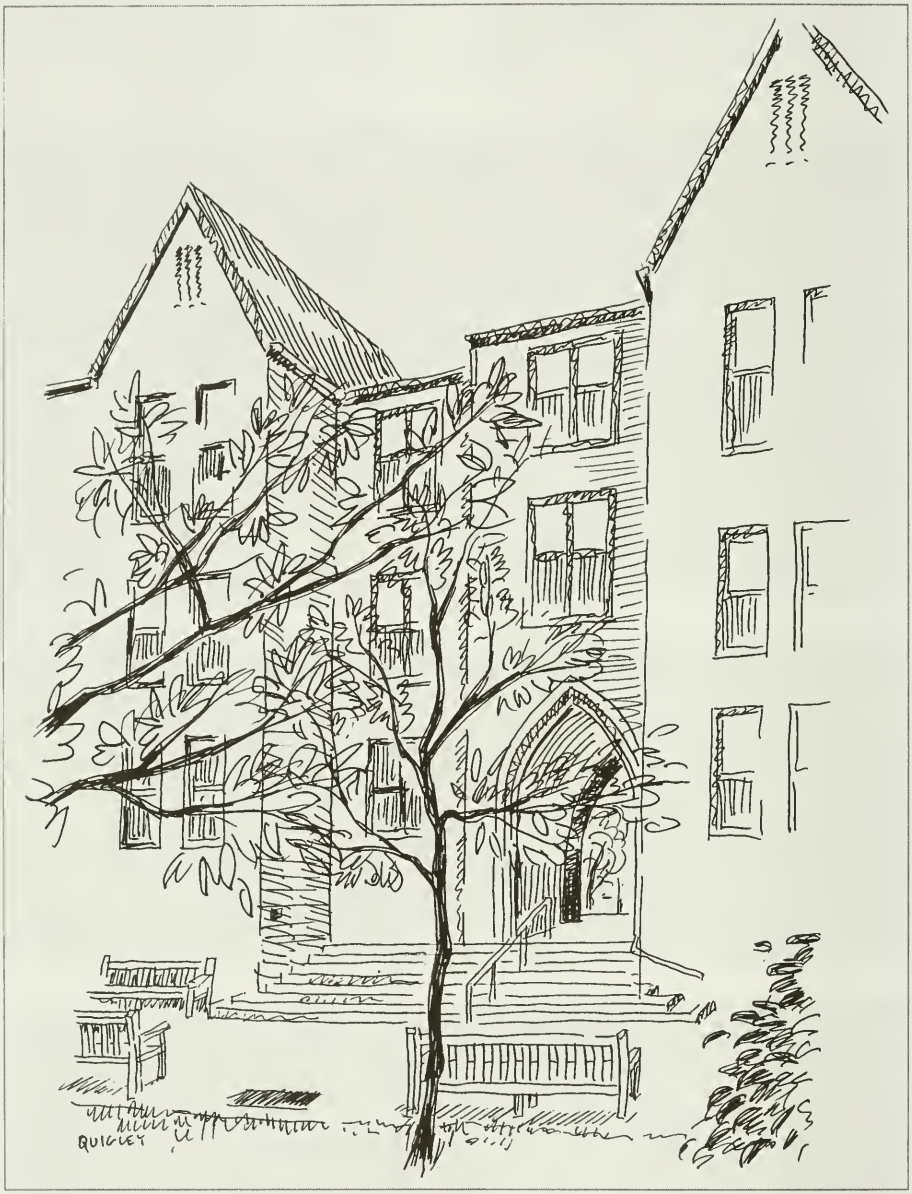
KSOM Business Common Curriculum – First Year

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
MAJOR (GE S/BH)	ECO 153-154	Prin. of Micro-Macro Econ.	3	3
GE WRTG-SPCH	WRTG 107-COMM 100	Composition-Public Speaking	3	3
GE C/IL	C/IL 104	Computer Info. Literacy		3
GE PHIL	PHIL 120	Intro to Philosophy	3	
GE T/RS	T/RS 121	Theology I		3
GE QUAN-ELECT	MATH	Math Option – two courses	3	3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16

CPS Common Curriculum – First Year

For students considering Health Care or Education as a major, the Panuska College of Professional Studies has a program designed to provide an exploratory freshman year for those who wish to defer declaring their choice of major.

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
GE COMM 100	COMM 100	Public Speaking	3	
GE WRTG 107	WRTG 107	Composition	3	
GE PHIL-T/RS	PHIL 120-T/RS 121	Intro to Philosophy-Theology I	3	3
GE NSCI	BIOL 110-111	Structure & Function of Human Body	4	4
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE C/IL 102	C/IL 102	Computing & Info Literacy		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
MAJOR		Elective or Core Course		3
ELECT	HS 332	Career Choice		2
			17	18



Mulberry Plaza

The College of Arts and Sciences

With more than 35 areas of study, The College of Arts and Sciences (CAS) is the largest academic division of the University. Its liberal arts programs serve students well in many different careers. CAS programs also lay the foundation for professional study in law, medicine and dentistry, as well as for graduate study in various fields.

ART AND MUSIC

Michael DeMichele, Ph.D., *Chair*
Josephine M. Dunn, Ph.D., *Director, Art and Music Program*
See History for faculty listing.

Overview

The Art and Music program offers two minors: Art History and Music History. Foundation courses in studio art are also offered (e.g., drawing, design and painting). Each discipline aims to develop a student's creative expression, to prompt aesthetic appreciation and judgment, to develop critical thinking, and to deepen understanding of the impulse to create with sound and image.

Designated courses in Art History and Music History satisfy General Education requirements in the following areas: Humanities, Cultural Diversity, and Writing-Intensive.

Minor in Art History

A minor in Art History requires 18 credits, including ARTH 111 and 112. Four additional courses in Art History are required. Internships at the Everhart Museum are available to Art History minors upon completing 12 credits in Art History.

Students with minors in Art History have recently enrolled in graduate degree programs in art history, decorative arts, library science and museum education. Others have accepted employment with the Metropolitan Museum of Art, Sotheby's New York and Franklin Institute. Students with music literature minors have pursued careers in recording, musical composition and performance. Studio artists have continued their studies at the Moore College of Art, Maryland Institute of Art, and the Art Students' League, NYC.

Minor in Music History

A minor in Music History requires 18 credits, including MUS 111, 112, 235, 236, and two additional music courses numbered 110 or above.

Course Descriptions

Art

ART 112 **3 cr.**
Color and Design
A foundation course introducing the elements and principles of two-dimensional design. Various materials are used to explore the organization of space and basic color theory.

ART 114 **3 cr.**
Three-Dimensional Design
A foundation course investigating basic materials and approaches in the creation of three-dimensional form. Hands-on involvement with diverse media, techniques and tools of the sculptor's craft is emphasized.

ART 116 **3 cr.**
Basic Drawing
A foundation course designed to develop skills in basic drawing and perception. Various media are employed in exercises involving the use of line and shading, shape and space, and design and composition.

ART 120 **3 cr.**
Painting I
(Prerequisite: ART 112, 116 or equivalent) A first-level painting course concerned with fundamentals such as composition, observation, basic color theory and basic techniques. The class includes one museum trip and regular group critiques.

ART 182, 183 **3 cr.**
Independent Study Courses
These courses are designed to address the career objectives of students who intend to pursue studies in studio art, or in disciplines for which background in studio art is necessary. Arranged with permission of the director.

ART 184 **3 cr.**
Special Topics
Selected topics in studio art vary on the basis of student/faculty interest and available resources Topics may include, but are not limited to: Printmaking, Painting II, Advanced Drawing, Pastel and Watercolor.

Art History

ARTH 111 **3 cr.**
(CA) History of World Art I
A survey of the history of painting, sculpture, and architecture from prehistoric times through the dawn of the Renaissance in 1400. The art of ancient Eastern and Western civilizations is studied in historical contexts of idea, style and technique.

ARTH 112 **3 cr.**
(CA) History of World Art II
The course opens with the history of painting, sculpture, and architecture in Renaissance,

Baroque, and 18th-century Europe. Introduced by Impressionism, Expressionism, and Cubism, the study of the art of the modern world concludes with a survey of idea, style and technique in 20th-century art. (ARTH 111 not a prerequisite.)

ARTH 113 3 cr.
(CA,D,W) Native American Art
Students will study the history, society, religious beliefs and craft tradirions of the precolonial peoples of the United States, as well as contemporary Native American artists. The course entails group work, a collaborative final project, and a trip ro the Mashantucket Pequot Museum in Connecticut.

ARTH 114 3 cr.
(CA,W) History of Architecture
A general survey of architectural history from the prehistoric through the modern era, focusing on architectural style, the built environment, and the rituals which condition the use and design of structures and urban spaces. The course features walking tours of Philadelphia and the city of Scranton as well as guest lectures by area architects.

ARTH 115 3 cr.
Art of the Ancient World
(Formerly ARTH 201) A survey of the art and architecture produced between 3000 and 1250 B.C. The course opens in the painted caves of Prehistoric Europe, and continues through the contemporaneous civilizations of the Ancient Near East (Sumer, Babylon, Assyria, Persia) and Egypt.

ARTH 116 3 cr.
(CA,W) Art of Greece and Rome
(Formerly ARTH 202) The course begins in the Aegean with the Minoan and Mycenaean cultures celebrated by Homer; surveys the art of classical Greece; and continues with the art of the Etruscans in ancient Italy. The course concludes with Roman art and architecture (3rd c. B.C. to 5th c. A.D.).

ARTH 117 3 cr.
(W) Early Christian and Byzantine Art
(Formerly ARTH 203) The art and architecture produced by the first Christians borrowed much from the forms and ideas of Roman art. The course surveys art produced in Rome, Ravenna, Milan, Greece and Constantinople, 200-1400 A.D. Emphasis will be placed on the origin and symbolism of Christian imagery and architecture.

ARTH 118 3 cr.
(W) Medieval Art: Romanesque and Gothic
(Formerly ARTH 204) A survey of art and architecture in western Europe, 1100-1400. Medieval architecture, manuscripts, paintings, and decorative arts will be presented as mirrors of medieval thought and spirituality.

ARTH 205 3 cr.
The Icon in Russian and East European
This course focuses on theology, image and artistic style in the making of the icon in Russia and East Europe. The icon will be from medieval through modern times.

ARTH 210 3 cr.
(CA,D) Topics on Women in the Visual Arts
This cross-disciplinary course presents selected topics on women in the visual arts, 1600 to the present. It includes the history of women's achievements and struggles in the visual arts, varied ways of thinking and writing about women, art and culture. Topics may include, but are not limited to: Contemporary Women Artists; Women Artist in Latin America; Women Artists in America; 19th-Century Women Artists, etc.

ARTH 213 3 cr.
(CA) American Art
A survey of American architecture, painting and sculpture from the earliest exploration days. The course will cover art of Native America, the colonial period, the Civil War era and the 20th century.

ARTH 214 3 cr.
Renaissance Art in Italy, 1200-1480
As a survey of the art produced in Italy, 1200-1480, the course examines the production of art as it relates to society and culture. From St. Francis' Assisi to Pope Sixtus IV's Rome, and from Giotto to Botticelli, painting, sculpture, and architecture will be studied in contexts of history, gender, technology, intellectual life, theology and philosophy.

ARTH 215 3 cr.
Renaissance Art in Italy, 1480-1620
This course continues with a survey of art and society in Italy, 1480-1620. The papacy, during the 15th century, brings Michelangelo and Raphael to Rome, which remains a cultural capital for artists through the 17th century. Artists working in 16th century Florence, in the wake of Michelangelo, introduce a style that flourishes brightly, but briefly: Mannerism.

ARTH 216 **3 cr.**
(CA,W) Michelangelo and His World
(Formerly ARTH 410) This course investigates the painting, sculpture, and architecture of Michelangelo. By considering the artistic traditions to which he fell heir as a Florentine artist, the traditional and the innovative aspects of Michelangelo's work will be assessed. Readings from his letters and poetry and from 16th-century biographies will furnish a rich context for the appreciation of his work and for understanding the society to which he belonged.

ARTH 217 **3 cr.**
(W) Leonardo Da Vinci
(Formerly ARTH 411) Artist, scientist, author and free-thinker, Leonardo left few paintings, many drawings, and copious notes attesting the wide range of his intellectual curiosity. This course focuses both on the 15th-century world to which the artist belonged and on his many writings in order to measure Leonardo's greatness as prodigy and visionary.

ARTH 218 **3 cr.**
(W) The Age of Rembrandt
(Formerly ARTH 303) A survey of the painting, sculpture, and architecture produced in Europe between 1600 and 1750. The course opens in Bernini's Rome of the Counter-Reformation and concludes in France at the royal courts of Louis XIV and XV.

ARTH 219 **3 cr.**
The Renaissance in Northern Europe
(Formerly ARTH 311) Art produced in northern Europe (France, Germany, Belgium, and the Netherlands) differs remarkably from the art produced in Italy by Botticelli and Michelangelo. This course surveys painting north of the Alps by such artists as Jan van Eyck, Rogier van der Weyden, Hieronymus Bosch, and Albrecht Dürer.

ARTH 220 **3 cr.**
History of Photography
The course explores the historical development of photography and considers the medium's aesthetic components as well as the theoretical and representational issues it raises.

ARTH 221 **3 cr.**
Nineteenth-Century Art
(Formerly ARTH 304) An exploration of painting and sculpture from Neoclassicism to Symbolism. Special emphasis will be given to works by J.L. David, Goya, Delacroix, Courbet, Manet, Morisot, Rodin, and Van Gogh. In addition to developing skills of visual analysis, the course will focus on the interaction between artist and society.

ARTH 222 **3 cr.**
Impressionism and Post-Impressionism
(Formerly ARTH 312) Impressionism, an artistic movement linked today with leisure and pleasure, developed out of conflict and challenged many standard European art practices. The course investigates the artistic goals and strategies of Manet, Monet, Degas, Renoir, Morisot, Cassatt and Pissarro and considers how their works respond to important social issues of the day. Paintings by the Postimpressionists Cézanne, Seurat, Van Gogh and Gauguin will be examined as reactions to the aims of Impressionism.

ARTH 225 **3 cr.**
Art of the Twentieth Century
(Formerly ARTH 305) Beginning with pre-World War I works by Matisse and Picasso, this course surveys the painting, sculpture, architecture and photography of the period known as modernism, ending with an exploration of the contemporary phenomenon of postmodernism. Through examination of both artworks and texts by artists and critics, considerations of style and technique will be integrated with an analysis of historical context.

ARTH 227 **3 cr.**
Matisse and Picasso
(Formerly ARTH 315) This course examines the works of these two influential modern artists by considering the aesthetic and historical context of their paintings, sculptures, prints, and writings on art.

ARTH 295-296 **3 cr.**
(W,D,CA) Travel Seminar
Short study trips to provide students with the opportunity to study works of painting, architecture, and sculpture on site. Trips will be designed as themes: the Art Museums of London and Paris, The Bible in Text and Image (Italy), Renaissance Villas and Palaces, Michelangelo, etc.

ARTH 311 **3 cr.**
(CA) Medieval and Renaissance Women
This topics course explores various ways of looking at Italian medieval and Renaissance descriptions of women. In addition, primary texts by Hildegard von Nengen, Giovanni Boccaccio, Christine de Pisan, Leonbattista Alberti and Baldassare Castiglione will be studied for the light they shed on the notion and nature of woman.

Great emphasis will be placed on in-class analysis of images, and a field trip to the Italian Renaissance collection of the Metropolitan Museum, NYC, will enable students to apply skills of visual analysis.

ARTH 316 3 cr.
Painted Chambers of the Renaissance
Renaissance images were made, commissioned and viewed by particular audiences to whom the work of art communicated and reinforced contemporary beliefs and values. This course explores the meaning and purpose of murals produced for public and private use in private homes, churches and civic structures. Contemporary literature of the period will also be studied.

ARTH 380 1-3 cr.
Museum Methods
(Prerequisites: ARTH 111, 112 and two additional ARTH courses) Offered in cooperation with the Everhart Museum, this course introduces students to ideologies of arts administration and methods of curatorial research and procedure. On-site study at the Everhart Museum is supervised by the Curator of Art and by Art History faculty.

ARTH 384, 484 3 cr.
Special Topics
(Prerequisites: ARTH 111, 112 and two additional ARTH courses) Selected topics will vary from year to year on the basis of student/faculty interest and available media resources. Topics may include Art of the Far East, History of Printmaking, etc. Discrete styles and individual artists may also be the focus of a selected topics course.

Music

MUS 111 3 cr.
(CA) Music History I
The history and literature of Western classical music from the medieval period to the 18th century, including Gregorian chant, the growth of polyphony, the rise of instrumental music, and the birth and growth of opera.

MUS 112 3 cr.
(CA) Music History II
The history and literature of Western classical music from the 18th century to the present, including the increasing importance of instrumental music and opera, the development of atonality and serial music, and the recent avant-garde. MUS 111 is not a prerequisite.

MUS 211 3 cr.
Keyboard Music
Music written for the piano, organ, harpsichord and clavichord from the Renaissance to the 20th century. The course focuses on the development of keyboard instruments and the forms and composers that dominate the literature.

MUS 213 3 cr.
Symphony
Development of the symphony as an independent genre, from its origins in the mid-18th century to the present day. Works by Haydn, Mozart, Beethoven, Brahms, Tchaikovsky, Mahler, Shostakovich and Stravinsky will be among those considered.

MUS 217 3 cr.
Opera
The history of opera from its beginnings at the turn of the 17th century to the present with an emphasis on the 19th and 20th centuries. Representative operas by Mozart, Verdi, Wagner and Puccini, among others, will be examined.

MUS 218 3 cr.
American Musical Theatre
The development of musical theatre in America from the 19th century to the present, emphasizing works composed since the 1940s. Musicals by Jerome Kern, Rodgers and Hammerstein, Lerner and Loewe, Leonard Bernstein, and Stephen Sondheim will be considered.

MUS 219 3 cr.
History of Jazz
A detailed examination of a "truly American musical form." Included will be discussions of major stylistic periods, compositions, and performers. Listening examples, as well as live performances, will contribute to an understanding of jazz from its origins to the present day.

MUS 222 3 cr.
Bach
(Formerly MUS 323) The music of Johann Sebastian Bach in the context of the musical forms, styles, and genres current in the first half of the 18th century. A survey of Bach's life and works is followed by detailed study of selected vocal and instrumental compositions.

MUS 223 3 cr.
Mozart
(Formerly MUS 324) An examination of Mozart's major works in the genres of symphony, concerto, chamber music, church music, and opera, together with a brief biographical survey. The

influence of late 18th-century culture and musical conventions on Mozart's work is considered.

MUS 225 3 cr.
Beethoven
(Formerly MUS 325) Study of a composer whose fiery personality drove him to express through music universal concepts in an age of revolution, i.e., freedom and the dignity of the person. Course traces the evolution of Beethoven's major works – sonatas and concertos, symphonies and string quartets as well as *Fidelio* and the *Missa Solemnis* – and the effect of his deafness on his view of life and on his later works.

MUS 226 3 cr.
Romantic Music of the Nineteenth Century
A study of the major musical developments in the 19th century, the Romantic Period: the rise of piano literature, the art song, chamber and program music, and opera. Attention to nationalism.

MUS 228 3 cr.
Music of the Twentieth Century
(MUS 112 recommended as prerequisite) A study of the history and literature of Western classical music in the 20th century. The various "isms" of the period, including impressionism, expressionism, neo-classicism, serialism, and minimalism, will be examined.

MUS 233 3 cr.
Music in America
An overview of music in the United States from colonial times to the present, with an emphasis on the 20th century. Classical, popular, and traditional musical styles are considered, including the symphony, the opera, the Broadway show, jazz, rock, hymnody and folk music.

MUS 235 3 cr.
Music Theory I
The fundamental materials of tonal music: notes and rests, rhythm and meter, scales and modes, intervals, triads and seventh chords, melodic and harmonic organization, and an introduction to voice leading and part writing. Some knowledge of music notation helpful.

MUS 236 3 cr.
Music Theory II
(Prerequisite: MUS 235) Extension of the tonal vocabulary to include chromatic harmony, modulatory techniques, and the use of extended chords, as well as an overview of selected post-tonal procedures.

MUS 280 3 cr.
Liturgical Music
The role of music in the Roman Catholic Church. Emphasis on the practical rather than the historical. Recommended for any lay person or member of the clergy involved in developing church liturgy. No musical background required.

MUS 335 3 cr.
Introduction to Composition
(Prerequisite: MUS 235, 236) Guided individual projects in original composition, together with the analysis of selected works from the classical repertory.

MUS 284 3 cr.
Special Topics
Selected topics in music history will vary from year to year in accord with student/faculty interest.

BIOLOGY

Faculty

Michael A. Hardisky, Ph.D., *Chair*
Paul R. Beining, S.J., Ph.L.
Timothy Joseph Cadigan, S.J., Ph.D.
Michael D. Carey, Ph.D.
John R. Conway, Ph.D.
Kathleen G. Dwyer, Ph.D.
George R. Gomez, Ph.D.
Gary G. Kwiecinski, Ph.D.
Christine E. McDermott, Ph.D.
Michael A. Sulzinski, Ph.D.
Terrence E. Sweeney, Ph.D.
Daniel S. Townsend, Ph.D.
Janice Voltzow, Ph.D.
Robert F. Waldeck, Ph.D.

Overview

Courses in the Department of Biology are designed to achieve the following objectives: (1) To present the fundamental scientific facts and concepts which are needed for an understanding of the living world and people's relation to it; (2) To prepare students for advanced study or work in other biological fields.

The Bachelor of Science degree in Biology program supplies preprofessional preparation meeting all requirements and recommendations of professional schools (medicine, dentistry, veterinary medicine, optometry, podiatry).

While the department's record in the preparation of physicians is an impressive one

as indicated in the Pre-Medical section, its record as one of the baccalaureate sources of Ph.D.s in the biological sciences is equally prestigious. In this respect, a 1988 study by the Office of Institutional Research at Franklin and Marshall College shows that over the previous 66 years, The University of Scranton ranked 48th out of 877 four-year private, primarily undergraduate, institutions.

The biology curriculum appears below. In addition to the 9-credit freshman course in General Biology, biology majors will select 33 credits of Biology electives with at least one course in each of the following five course groups (special exemption may be made by permission of the chairperson).

Cellular (C):	BIOL 250, 255, 344, 346, 348, 349, 350, 351, 352, 354, 358, 445, 450
Molecular (M):	BIOL 250, 263, 344, 350, 351, 358, 361, 362, 364
Organismal (O):	BIOL 195, 196, 225, 241, 243, 245, 250, 255, 272, 344, 345, 346, 347, 348, 349, 351, 354, 370, 445, 446, 473
Genetics (G):	BIOL 260, 263, 361, 362, 375
Population (P):	BIOL 195, 196, 272, 273, 345, 349, 370, 371, 375, 471, 472, 473

Biology majors may use up to 6 credits in Chemistry (CHEM 350, 351, 360, 450, 451) as Biology electives.

See the Pre-Medical Program section for the premedical advisor's elective recommendations for pre-professional students.

Minor in Biology

The student must complete Biology 141-142, including the laboratory, and 15 additional credits of courses suitable for the Biology major. Biology electives must be selected from at least three of the five established course groups, and must include at least 3 credits of advanced laboratory work. It is strongly suggested that a potential Biology minor seek the advice of the department's chairperson concerning the selection of electives suitable to his/her personal goals.

Course Descriptions

Biology courses numbered 100-139 and 200-239 are not open to Biology majors.

BIOL 100 4 cr.
(E) Modern Concepts of Human Biology
(Requires concurrent enrollment in lecture and lab) Exploration of the practical impact which modern biological concepts have on our lives. Topics include cell function, genetics, plant and human biology, genetic engineering, cancer, AIDS and dying. Provides a framework for making informed ethical decisions regarding pertinent biological issues. Three hours lecture; two hours lab. Fall only.

BIOL 101 3 cr.
(E) Introduction to Biological Science
Introduction to fundamental concepts, principles and theories of modern biology. Discussion and application of the scientific method in discovery and learning, discussion of experimental and statistical techniques, examination of the historical and cultural fabric of biological science, and discussion of the impact of biological research and development on modern society. Three hours lecture.

BIOL 105 3 cr.
(E) Biodiversity
An examination of the variety of animal and plant species, especially in the two most diverse ecosystems: the coral reef and the tropical rain forest. The foundations of biological diversity will be studied: ecology, systematics, evolution and biogeography. Current topics will be discussed, such as deforestation, human population growth, endangered species and global warming. Three hours lecture.

BIOL 108 3 cr.
(E) History of Life on Earth
(Requires concurrent enrollment in lecture and lab) Sequence of appearance of life on earth based on the geological record. Topics include the origin of life on earth, patterns and processes of the fossil record, and an introduction to the diversity of life, past and present. Three hours lecture.

BIOL 110-111 8 cr.
(E) Structure and Function of the Human Body
(Requires concurrent enrollment in lecture and lab) A general study of the anatomy and physiology of the human organism, emphasizing the body's various coordinated functions from the cellular level to integrated organ systems. Three hours lecture, two hours lab each semester.

Biology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	BIOL 141–142	General Biology	4.5	4.5
COGNATE	CHEM 112–113	General Analytical Chemistry I–II	4.5	4.5
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
			16	18
Second Year				
MAJOR	BIOL	Biology Electives	4.5	4
COGNATE	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
GE QUAN–COGNATE	MATH 103–114[1]	Pre-Calculus Math–Analysis I	4	4
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE PHIL-T/RS	PHIL 210–T/RS 121	Ethics–Theology I	3	3
GE PHED	PHED ELECT	Physical Education	1	
			17	18.5
Third Year				
MAJOR	BIOL	Biology Electives	4.5	5
COGNATE	PHYS 120–121	General Physics I–II	4	4
GE S/BH	S/BH ELECT	Social Behavioral Elective	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE T/RS	T/RS 122	Theology II	3	
GE ELECT	ELECT	Free Elective		3
GE PHED	PHED ELECT	Physical Education		1
			17.5	16
Fourth Year				
MAJOR	BIOL	Biology Electives	7.5	7.5
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or TR/S Elective		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Free Electives	6	3
GE PHED	PHED ELECT	Physical Education		1
			16.5	14.5

TOTAL: 134 CREDITS

[1] *MATH 103 (taken before MATH 114) if indicated by Math Placement Test. Otherwise, credits may be taken in math, biology, chemistry or physics.*

BIOL 141-142 **9 cr.**
(E) General Biology
(Requires concurrent enrollment in lecture and lab) A comprehensive study of the nature of living organisms, both plant and animal, their structure, function, development and relationships, including the problems of development, heredity and evolution. Three hours lecture, three hours lab each semester.

BIOL 195 **3 cr.**
(E) Tropical Biology (O,P)
Study of tropical communities with emphasis on the coral reef. Introduction to a variety of other tropical areas, such as sandy beaches, turtle grass beds, mangrove swamps, tide pools, rocky shores, and rain forests. Approximately two weeks will be spent at a biological station in the American tropics. Swimming proficiency required. Intersession only.

BIOL 196 **3 cr.**
African Photo Safari (O,P)
Natural history of Eastern Equatorial Africa with special emphasis on the delicate ecological balance between plant and animal communities. The savannah plains, tropical mountain forests, northern frontier and Great Rift Valley will be visited for first-hand study of the tremendous diversity of fauna and flora. Intersession only.

BIOL 201 **3 cr.**
(E) Anatomy and Physiology
(Prerequisite: BIOL 101) An introduction to the biochemical, cellular, tissue and organismal organization of selected body functions; structure in relation to function is emphasized. Three hours lecture.

BIOL 202 3 cr.
(E) The ABC's of Genetics
Heredity for the non-science major, with emphasis on the human. Provides the background necessary for the non-scientist to understand his/her own hereditary background and to have informed opinions about societal issues related to genetics. Includes Mendelian, molecular, and population genetics, evolution, genetic diseases, genetic engineering, etc. Three hours lecture.

BIOL 210 3 cr.
Introductory Medical Microbiology
(Pre- or co-requisites: BIOL 110-111, CHEM 110-111; requires concurrent enrollment in lecture and lab) Fundamentals of microbiology, including structure, function, identification, pathogenesis, epidemiology and control of microorganisms with emphasis on human pathogens. Two hours lecture, two hours lab. Fall only.

BIOL 241 5 cr.
Comparative Vertebrate Anatomy (O)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Structure and phylogeny of vertebrate organ-systems, emphasizing and comparing vertebrate structures in relation to their functions. Amphioxus, shark, necturus, and the fetal pig are subjected to detailed laboratory study. Three hours lecture, four hours lab. Fall only.

BIOL 243 5 cr.
The Human Body (O)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Structure and function of the principal organ systems in mammals, emphasizing the human condition. The cat is subjected to detailed study in the laboratory. Three hours lecture, four hours lab. Spring only.

BIOL 245 4.5 cr.
General Physiology* (O)
(Prerequisites: BIOL 141-142, CHEM 112-113; requires concurrent enrollment in lecture and lab) Physiological processes underlying functioning of the animal organism. Study of irritability, excitation, conduction, contractility, cellular physiology, and functions of mammalian organ-systems. Three hours lecture, three hours lab.

BIOL 250 5 cr.
Microbiology (C,O,M)
(Prerequisites: BIOL 141-142, CHEM 112-113; requires concurrent enrollment in lecture and lab) Structure, function, growth, reproduction, heredity and relationships of bacteria, yeasts, molds, viruses; a brief survey of pathogens, life cycles of parasitic microzoa; introduction to disease and immunology. Three hours lecture, four hours lab; not open to Nursing majors.

BIOL 255 3 cr.
Animal Nutrition and Metabolism (C,O)
(Prerequisites: BIOL 141-142, concurrent enrollment in CHEM 233, if not already successfully completed) A survey of concepts and disciplines within the nutritional sciences. Lectures and discussion address basic sciences, biological factors, and current controversies including physiological systems directly and indirectly influencing nutrition and metabolism, nutrients and their metabolism, energy balance, food technology, and agribusiness. Spring semester

BIOL 260 4.5 cr.
Genetics (G)
(Prerequisites: BIOL 141-142) Mendelian, cyto-, population and evolutionary, and basic molecular genetics; emphasis on eucaryotes. Three hours lecture, three hours lab.

BIOL 263 5 cr.
Genetic Engineering (G)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Study of the nature and function of the gene with emphasis on the experimental evidence which gave rise to the present concepts of genetic engineering. Strong emphasis is placed on recombinant DNA techniques in both lecture and laboratory. Three hours lecture, three hours lab.

BIOL 272 5 cr.
Invertebrate Biology (O,P)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Structure and function of the major groups of invertebrates with emphasis on their evolutionary relationships. Labs focus on the diversity of invertebrate forms and include field trips. Three hours lecture, three hours lab. Fall, odd years.

BIOL 273 3 cr.
Marine Ecology (P)
(Prerequisites: BIOL 141-142) Diversity of marine habitats and of the organisms that inhabit them. Lectures and discussion address the physical and biological factors that influence the distribution and ecology of organisms in the various marine environments, including intertidal, estuarine, benthic, coral reef, and open ocean communities. The effects of humans on the sea will be assessed. Three hours lecture.

BIOL 344 4.5 cr.
Principles of Immunology (C,O,M)
(Prerequisite: BIOL 250 strongly recommended for 344 lecture, required for 344 lab) The basic molecular, cellular and organismal aspects of the immune response, emphasizing chemical and functional bases of antigens and immunoglobulins, cellular and humoral response, tolerance, immune deficiency, hypersensitivity, autoimmunity, blood groups, transplantation. Three hours lecture, three hours lab. Spring only.

BIOL 345 3 cr.
Comparative Animal Physiology (P,O)
(Prerequisite: BIOL 245) The physiological principles involved in adaptations of animals to their environment from a comparative viewpoint; osmotic control, temperature regulation, nerve and muscle physiology, sensory perception, etc. Three hours lecture.

BIOL 346 3 cr.
Endocrinology and Reproduction (C,O)
(Prerequisite: BIOL 245) The mammalian endocrine system; emphasis on molecular mechanisms of hormone action, feedback control of hormone production, integration with other physiological systems, and reproductive endocrinology. Three hours lecture. Spring only.

BIOL 347 3 cr.
Exercise Physiology (O)
(Prerequisite: BIOL 245) Study of anatomical and physiological effects of exercise, centering around control of physical performance by capacity to generate energy through aerobic and anaerobic pathways; includes effects of heredity, age, nutrition, training and environment on performance. Emphasizes the multidimensional role of exercise in weight control, cardiovascular fitness, stress management, fatigue, strength, etc. Three hours lecture/demonstration. Spring, odd years.

BIOL 348 4.5 cr.
Neurophysiology (C,O)
(Prerequisite: BIOL 245, or, for neuroscience majors, PSYC 231) Study of the organization and function of the neuron, neural circuits, and the major sensory and motor components of the central nervous system; bioelectric phenomena, synaptic transmission; the neural basis for higher functions such as cognition, memory, and learning. Three hours lecture; three hours lab.

BIOL 349 5 cr.
Plant Physiology (C,O,P)
(Prerequisite: BIOL 141 or 101 or permission of instructor) Functional anatomy and physiology of plants, including structure, photosynthesis, respiration, mineral nutrition, water relations, productivity, growth and differentiation, transport, stress physiology, and energy flow. Three hours lecture, Three hours lab. Lab is writing-intensive (W). Spring, odd years.

BIOL 350 5 cr.
(W) Cellular Biology (C,M)
Study of structure and function in eukaryotic cells. Emphasis on biomolecules, cell organelles, cell motility, signaling, and cell physiology. The cellular basis of human physiology and disease will also be discussed. Labs focus on experimental studies of cellular structure and function using techniques of modern cell biology. Three hours lecture, three hours lab. Lab fulfills a writing-intensive (W) requirement.

BIOL 351 5 cr.
Developmental Biology (C,O,M)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Development of vertebrates and inverrebrates from gametogenesis through organogenesis. Emphasis on cellular and molecular mechanisms involved in differentiation, morphogenesis, and determination of the body plan. Labs focus on experimentation with living, developing organisms. Three hours lecture, three hours lab. Spring only.

BIOL 352 5 cr.
Histology (C)
(Prerequisites: BIOL 141-142; BIOL 241 strongly recommended; requires concurrent enrollment in lecture and lab) Microscopic structure and function of the four basic vertebrate tissues. Emphasis will be placed on mammalian tissues. Lectures include historical, theoretical and practical perspectives. Laboratories include examination of tissues through the use of loan sets of slides as well as demonstrations and exercises in basic preparation of tissues for microscopic examination. Three hours lecture, four hours lab. Fall only.

BIOL 354 5 cr.
Special Histology
(Prerequisites: CHEM 232-233, BIOL 352) Microscopic recognition and functional correlations of the major vertebrate organ systems. Enrollment is limited to preserve informal and flexible working conditions appropriate to advanced histological work. This course is customized to the participants' needs. Options include in-depth training in techniques or in-depth analysis of a particular organ system. Two hours lecture, five hours lab. Spring only.

BIOL 358 3 cr.
Cellular and Molecular Neurobiology (C,M)
(Prerequisites: BIOL 141-142) Introduces Biology and Neuroscience majors to the cellular and molecular biology of the vertebrate nervous system. Includes ion channel structure and function, synthesis, packaging and release of neurotransmitters, receptor and transduction mechanisms, intracellular signalling, cell-to-cell communication, glial cell function, and neural growth and development. Three hours lecture.

BIOL 361 5 cr.
Molecular Biology I (M,G)
(Prerequisites: BIOL 141-142, CHEM 232; corequisite: CHEM 233; requires concurrent enrollment in lecture and lab) Structure and function of prokaryotic cells from a molecular viewpoint. Study of biomacromolecule structure and function; bacterial DNA replication, transcription, translation and how these processes are regulated. Three hours lecture, three hours lab. Spring only.

BIOL 362 5 cr.
(W) Molecular Biology II (M,G)
(Prerequisite: BIOL 361 or CHEM 350) Structure and function of eukaryotic cells and organisms from a molecular viewpoint. Study of eukaryotic genome and gene organization, DNA packaging and replication, RNA transcription and splicing, translation into proteins and how these processes are regulated. Discussion of HIV, cancer, and evolution on the molecular level. Three hours lecture, three hours lab optional. Fall only. Lab fulfills a writing-intensive (W) requirement.

BIOL 364 5 cr.
Virology (M)
(Prerequisites: BIOL 141-142, CHEM 232-233) A detailed survey of viruses important to animals and plants, including structure, replication, pathogenicity and diagnostic techniques. Strong emphasis is placed on the molecular biology of viruses in both lecture and lab. Three hours lecture, three hours lab. Fall only.

BIOL 370 4.5 cr.
(W) Animal Behavior (P,O)
(Prerequisites: BIOL 141-142) Classification of behavior types, development, functional advantages and evolution of behavior, and social and physiological aspects studied in lower and higher organisms. Three hours lecture, two hours lab. Spring only. The laboratory fulfills a writing-intensive requirement (W).

BIOL 371 5 cr.
Ecology (P)
(Prerequisites: BIOL 141-142) Study of physical, chemical, and biological factors that influence the distribution and abundance of organisms and determine the relationships among organisms from the population to the ecosystem level. Three hours lecture, three hours lab. Fall only.

BIOL 375 3 cr.
Evolution (G,P)
(Prerequisites: BIOL 141-142) A consideration of the theories of evolution and evidences for them in plants and animals. Population genetics and the adaptiveness of various organic traits will be discussed. Three hours lecture. Fall only.

BIOL 379 3 cr.
Biostatistics
(Prerequisite: MATH 103) Data analysis and statistical techniques in biology and medicine; probability and frequency distributions, descriptive statistics, hypothesis testing, and various parametric and nonparametric statistical tests. Use of one or more computerized statistical programs. Three hours lecture. Spring only.

BIOL 384 2-4 cr.
Special Topics in Biology
Study of selected topics in biology, varying from year to year in accord with student/faculty interest and current research advances. May include such topics as sensory reception, membrane biology, population genetics, etc.

BIOL 393-394 Variable Credit
Undergraduate Research
(Prerequisite: 12 credits in Biology) Individual problems for advanced students with sufficient background in biological and physical sciences.

BIOL 445 3 cr.
Mammalian Physiology (C,O)
(Prerequisites: BIOL 245, CHEM 232-233) Molecular, cellular, and tissue aspects of selected organ systems not normally covered in General Physiology, including calcium and skeletal homeostatic systems, integumentary system, gastrointestinal system, and aspects of nervous, endocrine, reproductive, and lymphatic systems. Three hours lecture.

BIOL 446 3 cr.
Cardiovascular Physiology (O)
(Prerequisites: BIOL 245, PHYS 120 or 140) The physiological and biophysical bases of cardiovascular function, including cardiac electrophysiology and mechanics; regulation of the

heart and the peripheral circulation; hemodynamics; solute and fluid exchange; and cell-cell interactions governing white blood cell transit. Special circulations will highlight the role of cardiovascular regulation in overall physiological function. Three hours lecture.

BIOL 450 **5 cr.**
Electron Microscopy (C)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Introduction to the mechanics of the electron microscope with emphasis on standard laboratory techniques, including preparation of materials, sectioning, viewing and photographic analysis. One hour lecture, six hours lab.

BIOL 471 **3 cr.**
Applied Ecology (P)
(Prerequisite: BIOL 371) The application of ecological principles and concepts to environmental problems, including consideration of their origins, effects on living systems, and potential solutions. Consideration of such issues as biodiversity, habitat degradation and loss, conservation biology, ecosystem management, wildlife ecology, agroecology, pollution, and global climate change. Three hours lecture.

BIOL 472 **3 cr.**
Systems Ecology (P)
(Prerequisite: BIOL 371) The study of ecosystem dynamics and their relationship to the functioning of the biosphere. A quantitative approach to ecosystem structure and function, emphasizing the use of simulation and conceptual models. The course will involve opportunities to construct and test simulation models. Three hours lecture. Spring, even years.

BIOL 473 **5 cr.**
Estuarine Ecology (O,P)
(Prerequisites: BIOL 141 or 101 or permission of instructor) The ecology of marine and estuarine systems, including soil chemistry, halophyte physiology, tidal marsh ontogeny, ecosystem function and the consequences of human alteration of the coastal zone. Lab includes a week-long field trip during Spring Break to Sapelo Island, Georgia, and Cocodrie, Louisiana. Three hours lecture, three hours lab. Spring, even years.

CHEMISTRY

Faculty

David E. Marx, Ph.D., *Chair*
Christopher A. Baumann, Ph.D.
Michael C. Cann, Ph.D.
John C. Deak, Ph.D.
Trudy A. Dickneider, Ph.D.
Timothy Daniel Foley, Ph.D.
Donna M. Narsavage-Heald, Ph.D.
David A. Rusak, Ph.D.
Joe A. Vinson, Ph.D.
Joan Wasilewski, Ph.D.

Overview

The department offers five majors: Chemistry, Biochemistry, Chemistry-Business, Chemistry-Computers, and Medical Technology. The program in Chemistry is approved by the American Chemical Society, which means that graduates may be certified by the American Chemical Society if they meet the requirements. In addition, outstanding students in the Chemistry and Biochemistry majors are eligible for consideration in the combined, five-year baccalaureate/master's degree program (please refer to the section on the Graduate School and to the *Graduate School Catalog* for specifics of the program). The strength of the department is indicated by the fact that The University of Scranton has been one of the leading schools in the country in the number of master's degrees awarded in chemistry.

The prestige of the department is also demonstrated by a study of the Office of Institutional Research at Franklin and Marshall College which ranked the University of Scranton 34th out of 917 private, four-year, primarily undergraduate colleges as the baccalaureate source of those earning Ph.D.s in Chemistry between 1981 and 1990.

Recent graduates of the department have been admitted to doctoral programs at a number of major universities including Harvard, Cornell, Johns Hopkins and the University of Pennsylvania. In addition, some graduates have attended medical and dental schools, and some have gone on to law school.

Minor in Chemistry

The minor in Chemistry includes Organic Chemistry (6 credits), Physical Chemistry (6 credits), and a chemistry laboratory course (3 credits).

Biochemistry

The department offers two tracks of study for biochemistry majors. The tracks are similar for the first three semesters, allowing students the option to change between the two tracks within that time frame, should their career goals change. The research track prepares students for graduate study in biochemistry or for a career in which independent research experience would be beneficial. The pre-professional track is more flexible and allows students a greater selection of elective courses in chemistry and biology in order to tailor their course of study to meet their individual career goals. The pre-professional track provides a strong background for students pursuing further studies in law or medicine or career paths not emphasizing research.

Minor in Biochemistry

The minor in Biochemistry includes Organic Chemistry (6 credits), Biochemistry (3 credits), Biophysical Chemistry (3 credits) and Chemistry laboratory (3 credits).

Chemistry-Business

The Chemistry-Business major combines theoretical and technical instruction in chemistry with management training in business. Graduates of this program will be concerned not only with chemical research and technological development but also with management problems in science-related industries.

Most Chemistry majors tend to be research-oriented although almost half of the approximately 100,000 chemists employed in American private industry are engaged in work other than research and development: management, marketing and sales. This combined degree was formulated to prepare chemists to assume these latter responsibilities.

From the point of view of the business student, almost one-third of all business graduates can expect to be employed in a chemistry-related field: pharmaceuticals, plastics, petroleum, etc. Most Business majors employed in such industries must develop, often on their own, the technical knowledge needed to understand their company's operations and products. A fundamental background in chemistry as provided in this concentration is a distinct advantage to individuals planning such careers.

Chemistry-Computers

The Chemistry-Computers program is designed to provide a vehicle for preparing students in the area of intensive computer use in the field of chemistry. The use of computers has long been important in chemistry, but in recent years areas such as molecular modeling and design have become increasingly important. Drug companies use these techniques for the design of drugs for particular medical problems. In addition, most of the modern analytical instruments are highly enhanced by on-line computer processing of data. This program is designed to enable students to enter industry or graduate programs in areas such as computational chemistry, chemical information retrieval, or molecular design.

B.S. in Medical Technology

The Bachelor of Science in Medical Technology degree program, under the direction of Dr. Trudy Dickneider, is designed to train and qualify students as medical technologists or clinical laboratory scientists serving hospitals, clinical laboratories, industrial or research institutions. The program meets and exceeds the requirements of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The program involves the satisfactory completion of the first three years of a curriculum of study (indicated below) at the University of Scranton and the fourth year of clinical education at a hospital having a School of Medical Technology approved by NAACLS. After completing the program, students take a national certification examination. To date the University has arranged affiliation with hospitals in the cities of Abington, Williamsport and Wilkes-Barre. See affiliations at the end of this catalog.

The curriculum for the BSMT closely parallels the B.S. in Biochemistry program so that students have the option to change to the latter after two years, should their career goals change.

Chemistry Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112–113	General Analytical Chem. I–II	4.5	4.5
COGNATE (GE QUAN)	MATH 114–221	Analysis I–II	4	4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Informarion Literacy	3	
GE T/RS–PHIL	T/RS 121–PHIL 120	Theology I–Introduction to Philosophy	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
			18.5	17.5
Second Year				
MAJOR	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
MAJOR	CHEM 240	Inorganic Chemistry		3
COGNATE	MATH 222[1]	Analysis III	4	
COGNATE	PHYS 140–141	Elements of Physics	4	4
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE ELECT	CMPS 134	Computer Science I		3
GE PHED	PHED ELECT	Physical Education	1	
			16.5	17.5
Third Year				
MAJOR	CHEM 330	Organic Chem. III	5	
MAJOR	CHEM 370	Instrumental Analysis		5
MAJOR	CHEM 362–363	Physical Chem. I–II	4.5	4.5
MAJOR	CHEM 390–391	Chem. Literature–Seminar	1	1
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			17.5	17.5
Fourth Year				
MAJOR	CHEM 440–440L	Adv. Inorganic Chem.–Lab	3	1.5
MAJOR	CHEM 493–494	Undergraduate Research	1.5	1.5
MAJOR	CHEM ELECT	Chem Elective, 300 Level or above	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Free Electives	3	6
			13.5	12

TOTAL: 130.5 CREDITS

[1] *For ACS certification, Chemistry majors must complete MATH 222, MATH 341, CHEM 350 or 450, and one upper-division chemistry elective.*

Course Descriptions

In cases where a student withdraws from a chemistry lecture course, the student must also withdraw from the corresponding laboratory course unless a written waiver is provided by the department.

C/CJ 200 — 3 cr.
Forensic Science

Designed for law-enforcement majors as well as science majors, this is a study of the rules of evidence and the position of the expert scientific witness in law, followed by a review of the uses of scientific, and particularly chemical, evidence in various phases of the investigation and trial of criminal actions.

CHEM 100 — 3 cr.
(E) Elements of Chemistry

An elementary study of the field of chemistry for the non-science major; concepts of structure, states of matter, modern developments, implications of the field for modern society. Three hours lecture.

CHEM 104 — 3 cr.
(E) Science and Society

A study of some current problems of a scientific and technological nature from the point of view of the non-science major. Scientific background will be provided to lead to greater understanding and possible solutions. Possible topic: energy, genetic engineering, narcotics, pesticides, etc. Three hours lecture.

Biochemistry Research Track Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112–113	General Analytical Chem. I–II	4.5	4.5
COGNATE (GE QUAN)	MATH 114	Analysis I	4	
COGNATE	BIOL 141–142	General Biology I–II	4.5	4.5
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			17	16
Second Year				
MAJOR	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
MAJOR	CHEM 240	Inorganic Chemistry		3
COGNATE	PHYS 120–121[2]	General Physics I–II	4	4
GE ELECT	CMPS 134	Computer Science I	3	
GE T/RS	T/RS 121	Theology I	3	
GE PHIL	PHIL 120	Introduction to Philosophy		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHED	PHED ELECT	Physical Education	.5	.5
			18	18
Third Year				
MAJOR	CHEM 330	Organic Chemistry III	3.5	
MAJOR	CHEM 370	Instrumental Analysis		5
MAJOR	CHEM 360–361	Biophysical Chemistry I–II	4.5	4.5
MAJOR	CHEM 390–391	Chemistry Literature–Seminar	1	1
COGNATE	COGNATE ELECT[1,2]	Cognate Electives (210 level or above)	3	
GE T/RS	T/RS 122	Theology II	3	
GE PHIL	PHIL 210	Ethics		3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHED	PHED ELECT	Physical Education		1
			18	17.5
Fourth Year				
MAJOR	CHEM 450–451	Biochemistry I–II	3	3
MAJOR	CHEM 450L	Biochemistry Lab	1.5	
MAJOR	CHEM 493–494	Undergraduate Research	1.5	1.5
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	COGNATE ELECT[1,2]	Cognate Elective (210 level or above)		3
GE ELECT	ELECT	Free Elective		3
			12	13.5

TOTAL: 130 CREDITS

[1] *Cognate electives for the Biochemistry major may be taken in any of the following disciplines: Biology, Chemistry, Computer Science, Environmental Science, Mathematics or Physics and certain Psychology courses (PSYC 210, 231 and PSYC 384: Psychopharmacology)*

[2] *For ACS certification, Biochemistry majors must take MATH 114, 221, 222, 341; PHYS 140-141 in place of PHYS 120-121; and CHEM 440 and 440L; and one course from the following: BIOL 250, 260, 263, 350, 361, or another Biology course approved by the Chemistry Department.*

CHEM 110-111 **6 cr.**
(E) Introductory Chemistry
A study of the fundamental concepts of general chemistry, organic chemistry, and biochemistry. Three hours lecture each semester.

CHEM 110L-111L **2 cr.**
Introductory Chemistry Laboratory
(Lecture is required as pre- or co-requisite; CHEM 110L is prerequisite for CHEM 111L)
Experiments dealing with principles of general, organic and biological chemistry are performed. Two hours laboratory each semester.

CHEM 112-113 **6 cr.**
(E) General and Analytical Chemistry
A study of the laws, theories and principles of general chemistry together with qualitative and quantitative analysis. Three hours lecture each semester.

Biochemistry Pre-professional Track Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112–113	General Analytical Chem. I–II	4.5	4.5
COGNATE	BIOL 141–142	General Biology I–II	4.5	4.5
COGNATE (GE QUAN)	MATH 103/114	Pre-Calculus–Analysis I	4	4
GE WRTG	WRTG 107	Composition	3	
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			17	17
Second Year				
MAJOR	CHEM 232–233	Organic Chem I–II	4.5	4.5
COGNATE	PHYS 120–121	General Physics I–II	4	4
GE SPCH	COMM 100	Public Speaking		3
GE T/RS	T/RS 121	Theology I	3	
GE PHIL	PHIL 120	Introduction to Philosophy		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE PHED	PHED ELECT	Physical Education	.5	.5
			18	18
Third Year				
MAJOR	CHEM 360	Biophysical Chemistry	4.5	
MAJOR	CHEM 370	Instrumental Analysis		5
MAJOR	CHEM 450–451	Biochemistry I–II	4.5	3
MAJOR	CHEM 390	Chem Literature	1	
GE T/RS	T/RS 122	Theology II	3	
GE PHIL	PHIL 210	Ethics		3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE ELECT	ELECT	Free Elective	3	
GE PHED	PHED ELECT	Physical Education	1	
			16	15
Fourth Year[1]				
MAJOR	CHEM ELECT	Adv. Topics–Biochemistry		3
MAJOR/COGNATE	CHEM/BIO ELECT	Chem or Bio Elective[2]	3-5	
COGNATE	COGNATE ELECT	Biology Elective[2]	3-5	3-5
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Electives	3	6
			15-19	15-17

TOTAL: 131-137 CREDITS

[1] *Senior year must contain at least 2 credits of laboratory or research.*

[2] *Advanced biology courses are those courses which the Biology Department designates in the cellular, molecular or genetics areas.*

CHEM 112L-113L 3 cr.
General and Analytical Chemistry Laboratory
(Lecture is required as pre- or co-requisite; CHEM 112L is prerequisite for CHEM 113L) Experiments involve semi-micro techniques for qualitative and quantitative analysis (gravimetric and volumetric analysis). Three hours laboratory each semester.

CHEM 114L 2 cr.
General Analytical Chemistry Laboratory
A special laboratory course for those students who are advanced in chemistry. Semi-micro techniques of gravimetric and volumetric quantitative analysis. Admission will be on the basis of a placement exam and the professor's permission. Note: For students with majors in the Chemistry and Biology departments, this course will satisfy the requirements for the CHEM 112-113 laboratory courses.

CHEM 202 3 cr.
Global Change
Earth-system sciences and global environmental change, examining the records of past changes in climate, land-mass distribution, and atmospheric and oceanic composition, evaluating fossils, tree-ring data, and geological indicators.

Chemistry-Business Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112-113	General Analytical Chem. I-II	4.5	4.5
COGNATE (GE QUAN)	MATH 103-114 or 114-221	Pre-Calculus.-Analysis I or Analysis I-II	4	4
COGNATE (GE S/BH)	ECO 153-154	Prin. of Micro. & Macro. Econ.	3	3
GE WRTG-SPCH	WRTG 107-COMM 100	Composition-Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE FSEM	INTD 100	Freshman Seminar	1	
			15.5	17.5
Second Year				
MAJOR	CHEM 232-233	Organic Chemistry I-II	4.5	4.5
MAJOR	ACC 253-254	Financial-Managerial Acctg.	3	3
GE ELECT	ELECT	Free Elective		3
GE T/RS	T/RS 121-122	Theology I & II	3	3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE HUMN	FOR LANG[1]	Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			17.5	17.5
Third Year				
MAJOR	CHEM 320-391	Industrial Chem. I-Chem. Seminar	3	1
MAJOR	MGT 351-352	Principles of Management I-II	3	3
MAJOR	MKT 351	Intro. to Marketing	3	
MAJOR	FIN 351	Intro. to Finance		3
COGNATE	CMPS 330	Information Systems	3	
COGNATE	MATH 204	Special Topics in Statistics		3
GE ELECT	CHEM ELECT	Chem. (210 level or above)		3
GE PHIL-T/RS	PHIL 210-ELECT	Ethics-Philosophy or T/RS Elective	3	3
GE PHED	PHED ELECT	Physical Education	1	
			16	16
Fourth Year				
MAJOR	OIM 351-OIM 352	Intro. to Mgt Science-Op Mgt	3	3
MAJOR	MGT 251	Legal Environment of Business	3	
COGNATE	PHYS 120-121	General Physics	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Electives	3	6
			15	15

TOTAL: 130 CREDITS

[1] *The department recommends foreign language.*

CHEM 232-233 6 cr.
(E) Organic Chemistry
(Prerequisites: CHEM 112-113) An introduction to the chemistry of the principal aliphatic and aromatic compounds of carbon and their derivatives. Three hours lecture each semester.

CHEM 232L-233L 3 cr.
Organic Chemistry Laboratory
(Lecture is required as pre- or co-requisite; CHEM 232L is prerequisite for CHEM 233L) Investigation of the chemical preparations and syntheses of major organic functional groups. Three hours laboratory each semester.

CHEM 240 3 cr.
Inorganic Chemistry
(Prerequisite: CHEM 113) Descriptive chemistry of main group and selected transition elements and their compounds correlated with the periodic table, physical properties, atomic and molecular structure.

CHEM 320 3 cr.
Industrial Chemistry
A review of chemical operations and unit or batch processes common to industry. Econometric analysis involving supply-demand, productivity, commodity prices and costing is an important area covered, as are measures of productivity and patent activity. Three hours lecture.

CHEM 330 2 cr.
Organic Chemistry III
(Prerequisites: CHEM 232-233) A continuation of Chemistry 232-233, emphasizing the study of the major types of organic mechanisms. Two hours lecture.

Chemistry-Computers Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112–113	General Analytical Chem. I–II	4.5	4.5
MAJOR	CMPS 134–144	Computer Science I–II	3	4
COGNATE (GE QUAN)	MATH 142–114	Discrete Structures–Analysis I	4	4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE T/RS	T/RS 121	Theology I		3
GE FSEM	INTD 100	Freshman Seminar	1	
			18.5	18.5
Second Year				
MAJOR	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
MAJOR	CMPS 240–250	Data Struct.–Mach. Org.	3	3
COGNATE	MATH 221-222	Analysis II-III	4	4
COGNATE	PHYS 140–141	Elements of Physics	4	4
GE PHIL-T/RS	PHIL 120–T/RS 122	Intro. to Philosophy–Theology II	3	3
			18.5	18.5
Third Year				
MAJOR	CHEM 370	Instrumental Analysis		5
MAJOR	CHEM 362–363	Physical Chemistry I–II	3	3
MAJOR	CHEM 390–391	Chemistry Literature–Seminar	1	1
MAJOR	CMPS 352	Operating Systems	3	
COGNATE	MATH 341	Differential Equations		4
GE PHIL	PHIL 210	Ethics	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
PHED	PHED ELECT	Physical Education	1	1
			17	17
Fourth Year				
MAJOR	CHEM 493–494	Undergraduate Research	1.5	1.5
GE ELECT	CHEM or CMPS ELECT	Chem.-Comp. Elective, 300 level or above	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE ELECT	ELECT	Free Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	
			14.5	13.5

TOTAL: 136 CREDITS

CHEM 330L 1.5-3 cr.
Organic Chemistry III
(Lecture is required as pre- or co-requisite) Experiments involve advanced techniques in synthesis and characterization of organic compounds. Six hours laboratory for Chemistry majors and three hours laboratory for Biochemistry majors.

CHEM 340 3 cr.
Environmental Chemistry
(Prerequisites: CHEM 232-233) A study of chemicals in the environment including their origin, transport, reactions, and toxicity in soil, water, air and living systems.

CHEM 342 3 cr.
Environmental Toxicology
(Prerequisites: CHEM 232-233, BIOL 141-142) This course will encompass several realms of environmental toxicology, including general toxicological theory, effects of contaminants on various biological systems, and discussion of environmental toxicological issues (i.e., specific case studies as well as the types of analyses used in these types of studies).

CHEM 344 3 cr.
Environmental Geochemistry
(Prerequisites: CHEM 232-233) Consideration of natural cycles (carbon, sulfur, oxygen, water, etc.) that govern the chemistry of our planet. The origins of the elements, paleohistory, and composition of the planet. Effects of man's activities with attention to their effects on the state of the oceans and the atmosphere.

Medical Technology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112–113	Gen. Analytical Chem. I–II	4.5	4.5
COGNATE (GE QUAN)	MATH 103–114	Pre-Calculus, Analysis I	4	4
GE ELECT	BIOL 141–142	General Biology I–II	4.5	4.5
GE SPCH	COMM 100	Public Speaking		3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			17	17
Second Year				
MAJOR	CHEM 232–233	Organic Chem. I–II	4.5	4.5
GE ELECT	BIOL 250–245	Microbiology–Physiology	5	4.5
GE T/RS	T/RS 121–122	Theology I–II	3	3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE WRTG	WRTG 107	Composition	3	
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE HUMN	HUMN ELECT	Humanities Elective		3
			18.5	18
Third Year				
MAJOR	CHEM 350	Intro. to Biochemistry	3	
MAJOR	CHEM 370	Instrumental Analysis		5
COGNATE	BIOL 344	Immunology		3
GE PHIL–PHIL or T/RS	PHIL 210–PHIL or T/RS	Ethics–Philosophy or T/RS Elective	3	3
GE HUMN	HUMN ELECT	Humanities Electives	6	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE PHED	PHED ELECT	Physical Education	1	1
			16	15
Fourth Year[1]				
MAJOR		Clinical Education		
MAJOR		Clinical Microbiology		
MAJOR		Clinical Chemistry		
MAJOR		Clinical Hematology/Coagulation		
MAJOR		Clinical Immunohematology		
MAJOR		Clinical Immunology/Serology		
MAJOR		Clinical Seminar		
			16	16

TOTAL: 133.5 CREDITS

[1] *There is a $125 Clinical Year Fee charged for each semester of senior year to cover University administrative costs. The student is not, however, charged University tuition for the credits earned in senior year. Some hospitals may charge their own fees. The department has an outstanding record in having its students accepted into medical-technology programs. It should be clear, however, that admission to clinical education is competitive and dependent on the student's academic record and success in the interview. The hospital is responsible for selection. A delay in beginning the clinical education may delay a student's graduation. credits for senior-year courses vary from 28 to 32, depending on the hospital. Course titles in that year may also vary.*

CHEM 350 3 cr.
General Biochemistry I
(Prerequisite: CHEM 233) An introduction to the study of biochemistry. A study of the chemical nature of lipids, carbohydrates, proteins, nucleic acids and enzymes, including relationships among vitamins, hormones, and inorganic compounds. Three hours lecture. Successful completion of CHEM 350 precludes credit for CHEM 450.

CHEM 351 3 cr.
General Biochemistry II
(Prerequisite: CHEM 350) An introduction to the study of the metabolism of carbohydrates, lipids, amino acids, and proteins, including energy transformations and the role of enzyme systems in the above processes. Three hours lecture. Successful completion of CHEM 351 precludes credit for CHEM 451.

CHEM 352 3 cr.
Chemical Toxicology
(Prerequisite: CHEM 233) The nature, mode of action and methods of counteracting substances which have an adverse effect on biological systems, especially human. Medical, industrial and environmental forensic aspects will be discussed. Three hours lecture.

CHEM 360 3 cr.
Biophysical Chemistry I
(Prerequisites: CHEM 232-233) An introduction to the application of physical-chemical principles to biological problems. This involves aqueous solutions, colloidal chemistry, thermodynamics, electro-chemistry, chemical kinetics and nuclear chemistry. Three hours lecture.

CHEM 361 3 cr.
Biophysical Chemistry II
(Prerequisite CHEM 360) A continuation of Biophysical Chemistry I involving a study of atomic and molecular structure, spectroscopy, photo-chemistry, and surface chemistry with applications to biological and biochemical phenomena. Three hours lecture.

CHEM 360L-361L 3 cr.
Biophysical Chemistry Laboratory
(Lecture is required as pre- or co-requisite; CHEM 360L is prerequisite for CHEM 361L) Experiments involve applications of physical-chemical techniques to biological problems. Three hours laboratory each semester.

CHEM 362-363 6 cr.
Physical Chemistry I-II
(Prerequisites: CHEM 113, MATH 222) A study of the physical-chemical properties of matter and the dynamics of chemical reactions. Three hours lecture each semester.

CHEM 362L-363L 3 cr.
(W) Physical Chemistry Laboratory
(Lecture is pre- or co-requisite; CHEM 362L is prerequisite for CHEM 363L) Experiments demonstrate physical-chemical properties of matter and reactions. Three hours laboratory each semester.

CHEM 370 2 cr.
Instrumental Analysis
(Prerequisite: CHEM 360 or 362) Instrumental methods of analysis consisting of theory and application of such instrumental techniques as spectroscopy, polarography, and instrumental titrimetry. Two hours lecture.

CHEM 370L 3 cr.
Instrumental Analysis Laboratory
(Lecture is required as pre- or co-requisite) Experiments involve application of modern chemical instrumentation and techniques to quantitative analysis. Six hours laboratory.

CHEM 384 2-4 cr.
Special Topics in Chemistry
Study of selected topics in chemistry and biochemistry, depending on student and faculty interest and the current state of the science. It may include topics from inorganic chemistry, organic chemistry, physical chemistry, analytical chemistry, polymer chemistry and interdisciplinary topics.

CHEM 390 1 cr.
Chemical Literature and Writing
A study of the published source material of chemical science and industry. The course includes practical instruction in library technique and in the written reporting of results. One hour lecture.

CHEM 391 1 cr.
Seminar
Current topics in chemistry, biochemistry, and industrial chemistry are prepared and presented by the students.

CHEM 440 3cr.
Advanced Inorganic Chemistry
(Prerequisites: CHEM 362-363 or 360-361) Theoretical concepts and their application to the reactions and structure of inorganic compounds. Coordination chemistry and related topics, physical methods and reaction mechanisms. Three hours lecture.

CHEM 440L 3cr.
Advanced Inorganic Chemistry Laboratory
(Lecture is required as pre- or co-requisite) Laboratory methods involving synthesis and characterization of inorganic compounds are developed. Three hours laboratory.

CHEM 450 3cr.
Biochemistry I
(Pre- or co-requisites: CHEM 233 and 360 or 362) Structure-function relationships with emphasis on the organic and biophysical characteristics of proteins, lipids and carbohydrates are described. Enzyme mechanisms and kinetics and the thermodynamic basis of intermediary metabolism are major themes. Three hours lecture. CHEM 450L Lab is required of Biochemistry majors. Successful completion of CHEM 450 precludes credit for CHEM 350.

CHEM 450L 3 cr.
(W) Biochemistry Laboratory
(Lecture is required as pre- or co-requisite) Experiments involve techniques used in characterization of biopolymers and study of enzyme kinetics.

CHEM 451 3 cr.
Biochemistry II
(Prerequisite: CHEM 450) The discussion of intermediary metabolism is continued from CHEM 450 with emphasis on lipid protein and nucleic acid metabolism. Chemical aspects of molecular biology, including DNA replication, gene regulation and protein biosynthesis are included. Three hours lecture. Successful completion of CHEM 451 precludes credit for CHEM 351.

CHEM 452 3 cr.
Enzymology
A course in the chemical nature of enzymes with relation to mechanism of enzyme action and kinetics, purification and identification of enzymes and isoenzymes, biochemical and physiological aspects of enzymes in living systems. Three hours lecture.

CHEM 460 3 cr.
Physical Chemistry III
(Prerequisite: CHEM 363) Quantum mechanics and quantum chemistry, including classical problems, perturbational theory, variational theory and specific applications of molecular orbital theory to organic molecules and spectroscopic applications.

CHEM 464 3 cr.
Polymer Chemistry
(Co-requisites: CHEM 330, CHEM 361 or 363) Survey of preparative methods for polymers; characterization of polymers using physico-chemical methods, spectroscopy, and thermal analysis; structure-property relationships; and applications of polymers. Three hours lecture.

CHEM 464L 1.5 cr.
Polymer Chemistry Laboratory
(Pre- or co-requisites: CHEM 330, CHEM 464) Laboratory experiments investigate synthesis and characterization methods for polymers, structure-property effects, and thermal analysis of polymers. Three hours laboratory.

CHEM 493-494 3 cr.
(W) Undergraduate Research
(Prerequisites: CHEM 233, 360 or 362, 390) Individual study and research in connection with a specific chemistry or biochemistry problem. Results must be written as a thesis and defended before the department. 1.5 credits each semester.

NSCI 103 3 cr.
(E,W) The Ascent of Man
Science and technology from the ancient Greeks to the present will be discussed from the personal viewpoint of the scientists and inventors. Lectures will be supplemented by films, demonstrations, and field trips. Three hours lecture.

COMMUNICATION

Faculty

Edward F. Warner, *Chair*
William B. Anderson, Ph.D.
Jan W. Kelly, Ph.D.
Rebecca Lea Mikesell, Ph.D.
Matthew M. Reavy, Ph.D.
Patricia A. Richards
Robert P. Sadowski, Ph.D.
Roger D. Wallace, Ph.D.

Overview

The Department of Communication embraces the fields of broadcasting (radio and television), cable, film, journalism, advertising, public relations, and speech. Although the media are interrelated, students may concentrate in one of these fields. Some students, however, will seek a mixture or subspecialty which combines study in several Communication areas. The department will adapt each student's curriculum to his or her goals, and for this reason individual student advising by the Communication faculty is a high priority.

Students who major in Communication become knowledgeable about the subject matter from both humanistic and scientific perspectives. They also have several opportunities to acquire on-the-job experiences through departmental internships, as well as individualized study available through faculty-directed projects and theses. A Communication degree program prepares students for professional careers and advanced studies. In addition, courses are designed to serve students in other departments of the University by developing their oral and written communication skills.

A student wishing to earn a B.A. degree in Communication must satisfactorily complete a minimum of 36 credits from the Department of Communication course offerings. Included among these 36 credits are five core courses required for all Communication majors:

COMM 115	Writing for Communication
COMM 210	Logical and Rhetorical Communication
COMM 215	Introduction to Communication Theory
COMM 316	Communication Ethics
COMM 415	Senior Seminar

Tracks

Majors are required to select a track or area of study:

- Advertising
- Communication Studies
- Film
- Journalism
- Public Relations
- Radio/TV Production

Each track has two required courses. The remaining Communication elective courses can be from the declared track or from the other tracks. The cognate in communication must consist of eight courses in the same academic area which will contribute to the student's preparation for work in the declared track.

Courses required in a specific track are identified by an asterisk; other courses in the track are optional.

Advertising

COMM 120	Mass Communication
COMM 225	Advertising*
COMM 227	Contemporary Public Relations
COMM 325	Advertising Copywriting*
COMM 326	Political Advertising
COMM 329	Graphics
COMM 380	Advertising Practicum

Communication Studies

COMM 110	Interpersonal Communication*
COMM 211	Argumentation and Debate
COMM 214	Small Group Communication*
COMM 228	Intercultural Communication
COMM 229	Gender and Communication
COMM 312	Organizational Communication
COMM 411	Persuasion and Propaganda

Film

COMM 120	Mass Communication
COMM 232	Film History*
COMM 332	Documentary Film
COMM 432	Film Theory and Criticism*
COMM 427	International Film

Journalism

COMM 120	Mass Communication
COMM 223	Radio Journalism
COMM 224	Newswriting*
COMM 323	Television Journalism
COMM 324	Computer Assisted Reporting
COMM 328	News Editing*
COMM 329	Graphics

Public Relations

COMM 120	Mass Communication
COMM 225	Advertising
COMM 226	Strategic Writing for PR*
COMM 227	Contemporary Public Relations*
COMM 327	Cases in Strategic PR
COMM 329	Graphics

Radio/TV Production

COMM 120	Mass Communication
COMM 221	Radio Production*
COMM 222	Television Production*
COMM 310	Mass Communication Law
COMM 317	Digital Audio/Video Production
COMM 321	Advanced Radio Production
COMM 322	Advanced TV Production
COMM 422	Educational Television
COMM 480	Television Practicum

Minor in Communication

A student wishing to minor in Communication must satisfactorily complete 18 hours to be selected with the approval of the department chair. Nine of these hours must come from the following three options:

1. COMM 115: Writing for Communication
2. Either COMM 210: Logical and Rhetorical Analysis or COMM 215: Introduction to Communication Theory
3. COMM 316 Communication Ethics (COMM 100 and COMM 484 do not count toward the minor.)

Course Descriptions

COMM 100 **3 cr.**
Public Speaking
This is a performance class which emphasizes the theory, composition, delivery, and criticism of speeches. Successful completion of COMM 100 (with a grade of C or better) fulfills the speech skills requirement of the University.

Communication Curriculum

	Department and Number	*Descriptive Course Title*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	COMM ELECT–COMM 115	Comm. Elective–Writing for Comm.	3	3
COGNATE	COGNATE ELECT	Cognate Elective		3
GE WRTG/SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE FSEM–PHED	INTD 100–PHED	Freshman Seminar–Physical Education	1	1
			16	16
Second Year				
MAJOR	COMM 210	Logical and Rhetorical Analysis	3	
MAJOR	COMM 215	Communication Theory		3
MAJOR	COMM ELECT	Communication Electives	3	3
COGNATE	COGNATE ELECT	Cognate Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics/Theology II	3	3
GE QUAN–S/BH	QUAN–S/BH ELECT	Quantitative–Social/Behavioral Elective	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	COMM 316–ELECT	Communication Ethics–Comm. Elective	3	3
MAJOR	COMM ELECT	Communication Electives	3	3
COGNATE	COGNATE ELECT	Cognate Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE ELECT	FREE ELECT	Free Electives	3	3
			18	18
Fourth Year				
MAJOR	COMM 415	Senior Seminar	3	
MAJOR	MAJOR ELECT	Communication Elective		3
COGNATE	ELECT	Cognate Electives	3	6
GE HUMN–S/BH	HUMN–S/BH ELECT	Humanities–Social/Behavioral Electives	3	3
GE ELECT	ELECT	Free Electives	6	3
			15	15

TOTAL: 130 CREDITS

COMM 110 3 cr.
Interpersonal Communication
An investigation and analysis of the process and nature of human communication and its intrapersonal and interpersonal attributes.

COMM 115 3 cr.
(W) Writing for Communication
(Prerequisite: WRTG 107 or fulfillment of Writing Skills requirement) An introduction to the major forms of writing for communication professions: corporate, print, radio/television production, public relations and advertising. Students will focus on the development and improvement of writing, research and critical thinking skills.

COMM 120 3 cr.
Mass Communication
Historical survey of the nature, scope, and function of the print and electronic media in the United States. Economics, programming and public control are some of the topics covered.

COMM 210 3 cr.
(W) Logical and Rhetorical Analysis
A study of the principles of logic and persuasion, analysis of fallacies, and critical examination of the principles of structure in written and oral communication. Practice in briefs and abstracts with an emphasis on precision and clarity.

COMM 211 3 cr.
Argumentation and Debate
This course concentrates on the techniques of argumentation, persuasion, debate, and forensics. Focuses heavily on research, case construction and formal analysis.

COMM 214 3 cr.
Small Group Communication
An examination of research, techniques, and principles of small-group communication. Topics

include problem solving, decision making, conflict resolution, leadership theories, interaction strategies and participant roles.

COMM 215 3 cr.
(W) Introduction to Communication Theory
This course introduces the communication major to the rich body of theory and research in human communication. Students will examine theories from the traditional contexts of the field: interpersonal, small group, public, organizational, mass media, intercultural and gender. An emphasis is on applying the various theories to students' communicative lives.

COMM 221 3 cr.
Radio Production
An examination of the dynamic industry roles of the radio producer/director. Areas to be studied include production theory and techniques which apply to station and program promotions, advertising, news, and music formats.

COMM 222 3 cr.
Television Production
Designed to provide both theoretical background and practical application of television production in and outside the studio. Various format types, production techniques, and artistic styles are studied. Opportunity for producing and directing television programs.

COMM 223 3 cr.
Radio Journalism
(Prerequisite: COMM 221 or COMM 224 or COMM 328) With a focus on gathering and preparing news for broadcast (concentrating especially on interviewing techniques), this class will investigate various news formats and styles. At the mid-semester point, the class will begin operating as a news team.

COMM 224 3 cr.
(W) Newswriting
(Prerequisite: COMM 115) Evaluating news, reporting, and writing stories. Newsroom organization. Style and usage. Interviewing. Feature writing. Students work at computer terminals. Typing ability needed.

COMM 225 3 cr.
Advertising
This course explores advertising as an institution in society, utilizing research, media planning, and creative strategies. Students will participate in the formulation of an advertising campaign plan for local businesses.

COMM 226 3 cr.
Strategic Writing for Public Relations
Writing and editing of public relations and marketing communication materials such as press releases, speeches, direct mail, brochures, newsletter and Web sites. Writing and editing for electronic media and video news. Emphasis on integrated communications.

COMM 227 3 cr.
Contemporary Public Relations
Principles of the professional practice of modern public relations. Concepts of planning and executing effective communication strategies including message design and distribution for any organization.

COMM 228 3 cr.
(D) Intercultural Communication
Designed to provide a framework for understanding diversity in communication patterns among cultures and co-cultures. Topics include high- and low-context patterns, verbal and nonverbal communication across cultures and co-cultures, persuasion, dialects, organization of verbal codes, and the structure of conversations.

COMM 229 3 cr.
(D) Gender and Communication
This course focuses on interactive relationships between gender and communication in contemporary American society by examining the multiples ways communication in families, schools, media and society in general creates and perpetuates gender roles. The course considers not only what is in terms of gender roles, but also what might be and how students, as change agents, may act to improve their individual and collective lives.

COMM 232 3 cr.
Film History
This course traces the evolution of filmmaking from its earliest experimental stages to the feature film of today. The course concentrates on the American film industry, its audience impact as a mass medium, and the genres of films that have evolved. Selected screenings will reveal transitions and refinements that characterize this medium.

COMM 310 3 cr.
Mass Communication Law
(Junior or senior standing) Analysis and examination of statutory laws, congressional legislation, and federal rules and regulations governing the mass media in the United States. Focus on the First Amendment, libel and slander, privacy, copyright, free press/fair trial, obscenity, adver-

tising, antitrust and monopoly, taxation, and licensing.

COMM 311 3 cr.
Political Communication
The study of rhetorical strategies used by the modern politician. Examination of American political rhetoric as well as rhetorical styles operative in foreign-policy activities.

COMM 312 3 cr.
Organizational Communication
The study of communication behaviors, patterns, and strategies in organizations. Topics include power and politics, organizational cultures, human resources, conflict management, and negotiation. Historical and contemporary theories of organizing are examined and critiqued from a communication perspective.

COMM 313 3 cr.
Nonverbal Communication
A study of the nonverbal aspects of human interaction. Topics include impression management, social influence, form and function in design, proxemics, kinesics, and the symbolic environment.

COMM 314 3 cr.
Legal Communication
An examination of specific skills needed to promote effective and meaningful communication by the legal professional and the interface with clients, juries, judges, and the non-legal public.

COMM 316 3 cr.
Communication Ethics
(Formerly Responsibility in Communication) This course will consider the need for and applications of proper standards by those in today's media. It will also focus on the media responsibility to be aware of the public they serve. Different faculty may approach this course from various ethical/humanistic perspectives.

COMM 317 3 cr.
Digital Audio and Video Production
This course will provide an introduction to producing audio and video content for new technologies such as the Web and digital publication formats. Students will use digital recording and editing equipment to produce projects suitable for new technologies.

COMM 318 3 cr.
Multi-Media Presentations
(Prerequisite: COMM 317) This course focuses on the principles and practices of speaker delivery style when using multimedia to present a message. Message construction and audience analysis will also be emphasized.

COMM 321 3 cr.
Advanced Radio Production
(Prerequisite: COMM 221) Building upon the foundation acquired in COMM 221, students generate specialized projects of their own design. Then, working with the instructor and professionals from the radio industry, students produce and direct complere programs for broadcast.

COMM 322 3 cr.
Advanced Television Production
(Prerequisite: COMM 222) Building upon the foundation acquired in COMM. 222, students pursue specialized projects in producing and directing programs for broadcast or cable distribution.

COMM 323 3 cr.
Television Journalism
(Prerequisite: COMM 224 or COMM 328) Broadcast-journalism skills are refined through classroom and outside assignments. Production techniques, including tape editing, are explored. Television news formats are produced.

COMM 324 3 cr.
(W) Computer-Assisted Reporting
(Prerequisite: COMM 224) Intensive training and practice in techniques of reporting and writing news stories and in covering public affairs. Familiarity with journalistic basics, style, and computer terminal operations required.

COMM 325 3 cr.
Advertising Copywriting
Students develop two separate creative campaign strategies for hypothetical clients of their own choosing. For these large-budget accounts, students must create copy for newspapers, magazines, broadcast, and direct mail, all with a consistent campaign theme.

COMM 326 3 cr.
Political Advertising
Critical examination of rhetorical strategies used in 20th-century political campaigning. Case studies and student projects focus on the special uses of broadcast and print media in political advertising.

COMM 327 3 cr.
Cases in Strategic Public Relations
Case studies focusing on the problems and challenges faced by a variety of organizations. Practical application of creative problem-solving, theory and research in actual organizations.

COMM 328 3 cr.
News Editing
(Prerequisite: COMM 224) Preparing copy for publication. Correcting, improving and trimming stories. Headline writing, layout, graphics. Wire services, printing process.

COMM 329 3 cr.
Graphics
Visual aspects of print media. Typography, printing presses, handling photos and other art layout and design, introduction to desktop publishing. Familiarity with journalism basics, style, and computer-terminal operations required.

COMM 331 3 cr.
Mass Media Management
(Prerequisite: COMM 120) The multi-faceted roles of managers in the various communication industries are examined. Special attention is given to technical, conceptual and humanistic concerns. Specific areas of study include management of self and personal relations, unions and contracts, community relations, audience analysis and measurement.

COMM 332 3 cr.
Documentary Film
This course traces the growth, development, and influence of American and foreign nonfiction films, particularly their various functions as propaganda, public service and promotion, education, entertainment, and art.

COMM 334 3 cr.
Broadcast Programming
Study of programming strategies, practices, and operations of commercial radio and television stations. Topics include audience research, program acquisitions, scheduling, formats, syndication, promotion, and network-affiliate relationships.

COMM 380 3 cr.
Advertising Practicum
(Prerequisite: COMM 225 or COMM 325) Students function as a full-service advertising agency which provides clients with a complete array of services ranging from campaign creation to implementation and evaluation.

COMM 411 3 cr.
Persuasion and Propaganda
An in-depth examination of the theoretical foundations and practical applications of those factors which influence the persuasibility of target audiences. Topics include attitudes, beliefs, values, behaviors, appeals and reference groups.

COMM 415 3 cr.
Senior Seminar
(Prerequisite: Senior standing) This capstone course will synthesize course work to prepare students for entry into the profession of communication. Emphasis will be placed on the application of Jesuit ideals to the identification and approaches that concerns today's communication industry.

COMM 416 3 cr.
Philosophy of Communication
A general study of the forces and dynamics that articulate the phenomenon of human communication by an examination of the human capacity to comprehend and realize fulfillment or wholeness through communication.

COMM 422 3 cr.
Educational Television
Instructional uses of the television medium by public television stations, schools, closed-circuit and cable systems. Types of educational programs are evaluated. Students work on preparing projects which may reflect their own pedagogical interests.

COMM 425 3 cr.
Cable Television
A study of cable television and its development and current place in the telecommunications industry. Topics include programming strategies, formats, multiple-system operators, independents, syndication, sales, satellite services, pay-per-view, audience ratings, management and the franchising process. Students develop their own research proposals for establishing new cable channels, networks and services.

COMM 426 3 cr.
International Broadcasting
Comparative analysis of national and international media systems throughout the world. Emphasis on their origin, development, and operation.

COMM 427 3 cr.
International Film
An investigation of the major contributions and movements of various nations in the development and evolution of film as a multi-national and global industry.

COMM 432 3 cr.
Film Theory and Criticism
Critical examination of the major theoretical and analytical explanations of film's effectiveness as an artistic form of communication. The work of classical, contemporary and experimental film scholars will be studied, and selected films depicting their observations will be screened. Film analysis and criticism projects will be designed by students.

COMM 433 3 cr.
Television Criticism
Analysis of radio and television programs and promotional strategies, including formats, scripts, talent, commercials, public- service announcements, positioning, ratings, and network-affiliate relationships.

COMM 480 3 cr.
Television Practicum
(Prerequisites: COMM 222, COMM 322) Communication Seniors undertake significant areas of study resulting in a broadcast-quality videotape or audiotape suitable for airing by commercial or non-commercial television stations, radio stations or cable systems.

COMM 481 3-6 cr.
Internship
(Prerequisites: Junior or senior standing, plus appropriate course work, and faculty approval) Highly recommended for every major, this on-the-job experience is guided by practitioners in the communication field and supervised individually by a faculty member in consultation with the student's advisor and the department chair. (Internship credits can only be used in the elective area.) See internship director.

COMM 482 3 cr.
Directed Independent Study
(Prerequisite: Senior standing) In consultation with the student's advisor and department chair, Communication Seniors undertake a significant area of study resulting in a major research paper. Students select a Communication professor whom they wish to direct the study. Provided to augment an area of the student's interest not substantially covered in available departmental courses.

COMM 484 3 cr.
Special Topics
In-depth departmental seminars on selected communication topics meeting the needs and interests of students. Topics vary from semester to semester.

COMM 499 3 cr.
Senior Thesis
(Prerequisites: COMM 215 and 316) An optional research-based written project in which Communication seniors (in consultation with their advisor and department chair) select an issue or problem for scholarly study, undertakes significant and meaningful research, and produces a major paper of publishable quality. Students select a Communication professor whom they wish to direct their thesis. Strongly recommended for students planning for graduate school.

COMPUTING SCIENCES

Faculty

Richard M. Plishka, M.B.A., *Chair*
John Beidler, Ph.D.
Yaodong Bi, Ph.D.
Joseph M. Borosky, M.S.
Paul M. Jackowitz, M.S.
Robert W. McCloskey, Ph.D.
James R. Sidbury, Ph.D.
Charles E. Taylor, M.B.A.

Overview

The University of Scranton's Bachelor of Science program in Computer Science dates from 1970 – one of the oldest in Pennsylvania. The Computer Science Program is accredited by the Computing Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 (telephone: 410-347-7700). The Computer Science major provides an integrated introduction to Software Engineering along with the mathematical skills needed in Computer Science. The program culminates in the senior year with the Computer Projects course. Research and internship opportunities are available. The Computing Sciences department may be reached on the World Wide Web at www.cs.scranton.edu.

Minor in Computer Science

The student must take a minimum of 20 hours including CMPS 134, MATH 142, CMPS 144, CMPS 240 and any two of CMPS 250, 260, 340, 344, 350, 352, 356, 360, 364, 370, 372, 374 or 384.

Computer Information Systems

This program investigates the analysis, design, development, implementation, evaluation and effective use of computer information systems in organizations. Since business and government are principal users of computers, CIS majors will select cognate courses in business. Students are encouraged to participate in an internship.

Minor in Computer Information Systems

The student must take a minimum of 18 credits including CMPS 134, 136 or 144, 330, 331 and two of MATH 142, CMPS 202 or 312, CMPS 240, 311, 340, 356 or 376.

Computer Science Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	CMPS 134–144	Computer Science I–II	3	4
COGNATE	MATH 114	Analysis I		4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE T/RS	T/RS 121	Theology I		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE QUAN	MATH 142	Discrete Structures	4	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			17	18
Second Year				
MAJOR	CMPS 240–250	Data Structures–Machine Org.	3	3
MAJOR	CMPS 260	Theoretical Foundations		3
COGNATE	MATH 221–351	Analysis II–Linear Algebra	4	3
GE NSCI	PHYS 140–141	Elements of Physics I–II	4	4
GE PHIL	PHIL 210	Ethics	3	
GE T/RS	T/RS 122	Theology II		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE PHED	PHED ELECT	Physical Education	1	1
			18	17
Third Year				
MAJOR	CMPS 352–344	Operating Systems–Program Lang.	3	3
MAJOR	CMPS 340–ELECT[1]	File Processing–Elective	4	3
MAJOR	CMPS 350–374	Comp. Architecture–Software Eng.	3	3
COGNATE	MATH 310	Applied Probability & Sraristics	4	
COGNATE	COGNATE2	Cognate Elective		3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE ELECT	ELECT	Free Elective		3
			17	15
Fourth Year				
MAJOR	CMPS 490	Computer Projects	3	
MAJOR	CMPS ELECT[1]	Major Electives		6
COGNATE	COGNATE[2]	Cognate Elective	3	
GE PHIL	PHIL 214	Computers and Ethics		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE ELECT	ELECT	Free Electives	3	3
			15	15

TOTAL: 132 CREDITS

[1] *The three electives in the major must be chosen from CMPS 341, 354, 356, 358, 360, 362, 364, 370, 372, 376, 384, 393 and 481.*

[2] *At least 4 credits must be courses in the natural sciences for science majors which enhance the student's ability in the application of the scientific method. See departmental advisor for acceptable courses.*

Course Descriptions

CMPS 134 — 3 cr.
Computer Science I

An introduction to programming concepts and methodology using an appropriate object-oriented programming language (currently Java). Topics include problem analysis, abstraction, modularization, the development and use of algorithms, reuse, and the use or programming constructs including data types, classes, control structures, and methods.

CMPS 136 — 3 cr.
Computer Programming II

(Prerequisite: CMPS 134) for non-computing majors who want more object-oriented programming experience. Includes data structures, file processing, graphical user interfaces and event-driven programming. May not be used to satisfy

Computer Information Systems Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	CMPS 134–144	Computer Science I–II	3	4
GE QUAN–COGNATE	MATH 142–114	Discrete Structures–Analysis I	4	4
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			17	18
Second Year				
MAJOR	CMPS 240–250	Data Structures–Machine Org.	3	3
COGNATE	ACC 253–254	Financial & Managerial Acc.	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE S/BH	ECO 153–154	Prin. of Micro.–Macro. Economics	3	3
GE ELECT	MATH 204[1]	Statistics		3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	CMPS 352–ELECT[2]	Operating Systems–Elective	3	3
MAJOR	CMPS 340–341	File Processing–Database Systems	4	3
MAJOR	CMPS 330–331	Info. Sys.–Sys. Analysis & Design	3	3
COGNATE	MGT 351–352	Principles of Management I & II	3	3
COGNATE	MGT 251	Legal Environment of Business		3
GE NSCI	NSCI ELECT	Natural Science Elective	3	
GE ELECT	ELECT	Free Elective		3
			16	18
Fourth Year				
MAJOR	CMPS 490–ELECT[2]	Computer Projects–Elective	3	6
COGNATE	MKT 351	Intro. Marketing	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Elective	3	
GE PHIL	PHIL 214	Computers and Ethics		3
GE ELECT	ELECT	Free Electives	3	3
			15	15

TOTAL: 131 CREDITS

[1] *Or STAT 251.*

[2] *Elective courses in the Computer Information Systems major must be chosen from CMPS 260, 344, 350, 354, 356, 360, 362, 364, 370, 372, 374, 376, 384, 393 and 481.*

the requirements of CMPS or CIS. May not be taken by a student who has credit for CMPS 144.

CMPS 144 — 3 cr.
Computer Science II

(Prerequisites: CMPS 134 and MATH 142) This course emphasizes object-oriented software development, addressing both software engineering and programming. Topics include modularization, abstraction, encapsulation/information hiding, software reuse, software testing, classic data abstractions (e.g., lists, trees) and algorithms (e.g., sorting, searching) recursion, program correctness, and basic algorithm analysis.

CMPS 202 — 3 cr.
Web Development

(Prerequisite: C/IL 102 or equivalent course) A course that covers fundamental aspects of the development of personal, professional, and business resources using Web-development tools. Topics include creating Web pages using basic HTML; advanced HTML concepts; frames; JavaScript to enhance Web pages; forms; CGI (common gateway interface); Java classes. Emphasis is on client-side development although server-side issues are discussed. This is a technical course for students who do not necessarily have a technical background. May not be used as part of any major in the Computing Sciences Department.

CMPS 240 3 cr.
Data Structures and Algorithms
(Prerequisite: CMPS 144) An examination of the issues of data representation, algorithm structure, and encapsulation as they pertain to the development of object-oriented software. Abstract data types studied include stacks, queues, binary trees, n-ary trees, and graphs. Various representation alternatives are analyzed and compared, trade-offs frequently encountered by software developers are discussed.

CMPS 250 3 cr.
Machine Organization and Assembly Language Programming
(Prerequisite: CMPS 144) An introductory study of the organization and architecture of computers through an exploration of various virtual machines. Programming at the assembly-language level and interfacing with software components (primarily written in C). Topics include representation of data and instructions, computer arithmetic, memory hierarchies, instruction sets, addressing modes, digital logic, microprogramming, pipelining, and parallel processing.

CMPS 260 3 cr.
Theoretical Foundations of Computer Science
(Prerequisite: CMPS 240) An examination of the fundamental models and concepts of computation – automata, formal languages, and grammars – and how they are related. Church-Turing thesis; recursive and recursively enumerable sets; unsolvable problems; complexity of algorithms; Chomsky hierarchy.

CMPS 301 3 cr.
Computer Networks and Security
(Prerequisite: CMPS 136 or CMPS 144) An introduction to intranets and wide-area networking including operating systems fundamentals, hardware considerations, deployment and administration of networks, security issues, intrusion detection/protection, firewalls, VPN's and encryption. May not be used to satisfy the requirements of the major. May not be taken by a student who has credit for CMPS 354.

CMPS 312 3 cr.
Web Technology
(Prerequisites: C/IL 102 or equivalent, COMM 329, CMPS 311) This course covers the fundamental aspects of developing and maintaining Web sites. It provides a thorough coverage of the structure and elements of HTML and JavaScript necessary to create commercial-quality Web sites. Brief coverage will also be given to graphic design and multimedia content. Emphasis will be placed on client-side development although server-side issues will be considered. May not be used as part of any major in the Computing Sciences Department. Cannot be taken by a student who has credit for CMPS 202 or 356.

CMPS 330 3 cr.
(W) Information Systems Analysis
(Prerequisite: C/IL 102/104 or CMPS 134) Introduction to concepts and practices of information processing. Computerized system requirements and techniques in providing appropriate decision-making information to management.

CMPS 331 3 cr.
Information Systems Development
(Prerequisite: CMPS 330) A study of system-development methodology and the role played by the systems analyst in developing user-accepted information systems.

CMPS 340 4 cr.
File Processing
(Prerequisites: CMPS 144 required, CMPS 240 recommended.) File-structures concepts and file-processing applications using an appropriate programming language (currently COBOL). Topics include file maintenance and storage management; file searching, sorting, and merging; cosequential processing; index structures; B-trees; hash tables; indexed sequential files; database concepts.

CMPS 341 3 cr.
Database Systems
(Prerequisites: CMPS 340 required, CMPS 240 recommended) An introduction to database management systems with an emphasis on relational database design and applications. It uses an appropriate database package such as ORACLE or PostgreSQL.

CMPS 344 3 cr.
Programming Languages
(Prerequisite: CMPS 240) A study of programming languages from both the theoretical and practical perspectives. A survey of major and developing paradigms and languages is undertaken which includes use of specific languages to broaden the student's experience. Implementation is studied through an introduction to language translation along with a study of run-time models and interfaces with virtual machines.

CMPS 350 3 cr.
Computer Architecture
(Prerequisite: CMPS 250) A study of the logical structure of computer-system organization

including a survey of logic and design with an emphasis on functional components. Topics include instruction sets, hard-wired and microprogrammed control-unit designs, memory systems (caches and virtual memory), I/O systems (interrupts, DMA, and channels). Overview and examples of alternative and advanced computer architectures (pipeline, array processors, multiprocessors).

CMPS 352 3 cr.
Operating Systems
(Prerequisites: CMPS 240, CMPS 250) An introduction to the principles of operating systems. Topics include operating system structure, process management, scheduling and dispatching, process synchronization and interprocess communication, memory management, virtual memory, device management, I/O, and file systems.

CMPS 354 3 cr.
Data Communications and Networks
(Prerequisite: CMPS 352) A study of data communication and networking concepts, including distributed-system architectures, electronic interfaces, data-transmission, data link protocols, terminal networks, computer communication, public-data networks, and local-area networks.

CMPS 356 3 cr.
Web Programming
(Prerequisites: CMPS 240, HTML experience to the level where the students are capable of developing their own Web page) This course covers all aspects of programming on the World Wide Web. This includes the presentation of HTML, Java, JavaScript and CGI. Topics include advanced HTML (maps, forms, etc.) client-server programming basics as they relate to the Web, Java machine concepts, Java/JavaScript similarities and differences, server-side programming, GIF animations, Web programming resources and environments.

CMPS 358 3 cr.
Real-Time Systems
(Prerequisite: CMPS 352) A study of issues related to systems that interface with the physical world and must meet the timing constraints imposed on them. Topics include: real-time hardware architecture, real-time operating systems, invoking and managing threads and processes, interprocess communications and synchronization, manipulating process priority, concurrent programming, exception handling, software safety, reliability, and fault tolerance.

CMPS 360 3 cr.
Analysis of Algorithms
(Prerequisite: CMPS 240) A survey of methods for designing and analyzing algorithms. Classic algorithms from graph theory, combinatorics and text processing are examined, as are traditional design strategies such as divide-and-conquer, backtracking and dynamic programming. Other topics include NP-completeness and parallel algorithms.

CMPS 362 3 cr.
Numerical Analysis
(Prerequisites: CMPS 134, MATH 222) A survey of numerical methods for solving equations, integration, differentiation, interpolation, differential equations, and linear algebra, and the analysis of error.

CMPS 364 3 cr.
Theory of Computation
(Prerequisite: CMPS 260) The development of a theoretical notion of computability and its relationship to Turing computability and recursive functions; the study of the relationships between automata, formal languages and grammars.

CMPS 370 3 cr.
Computer Graphics
(Prerequisite: CMPS 240) An introduction to the hardware, software and techniques used to generate graphical representations by computer. Two and three dimensional concepts, algorithms and architectures are studied. An essential aspect of the course involves the development of programs utilizing appropriate APIs (currently OpenGL is emphasized) as a means of developing expertise. Advanced topics may be pursued as appropriate.

CMPS 372 3 cr.
Artificial Intelligence
(Prerequisite: CMPS 240) Problem solving using expert systems, heuristic programming techniques, tree speed-up techniques, and learning mechanisms.

CMPS 374 3 cr.
(W) Fundamentals of Software Engineering
(Prerequisite: CMPS 240) An introduction to the concepts of Software Engineering. Stress is placed upon formal models for the design and development of high-quality software. Topics include: project planning, requirements analysis, system design, program design, program implementation, program testing, system testing, system delivery, and maintenance. A group project will be included.

CMPS 376 3 cr.
Rapid Prototyping
(Prerequisite: CMPS 136 or CMPS 144) Some common applications using a database with a visual interface (perhaps Web based) can be successfully created using Rapid Prototyping (a.k.a. Rapid Application Development) This course will cover the synergy of combining a visual language and a relational database employing rigorous design techniques.

CMPS 384 3 cr.
Special Topics
(Prerequisite: as published) Some recent courses have covered Rapid Prototyping, Real-Time Systems, and Parallel Computing. A syllabus including prerequisites is published prior to the registration period for the course.

CMPS 393 3 cr.
Computer Research
(Departmental permission required) A research project carried out by a student under the direction of a faculty member in the department. The results will be prepared in a form suitable for publication. Reader fee.

CMPS 440 3 cr.
Compiler Design
(Prerequisite: CMPS 344) Study of techniques and problems involved in constructing compilers. Lexical analysis, syntax analysis, semantic analysis, symbol-table management, code generation, code optimization.

CMPS 481 3 cr.
Computer Internship
(Departmental permission required) An extensive job experience in computing which carries academic credit. Prior approval is required and information is available on the department Web site.

CMPS 490 3 cr.
(W) Computer Projects
(Prerequisite: Senior standing, departmental permission required) In this course students prepare and present individual computer projects to be evaluated by the instructor and their fellow students.

CRIMINAL JUSTICE

Joseph F. Cimini, J.D., *Chair*
See Sociology for faculty listing.

Overview

The Bachelor of Science degree program in Criminal Justice has the following objectives:

1. To prepare students for careers in law enforcement at the local, state or federal levels.
2. To prepare students for careers in the field of correction and rehabilitation: parole, prisons, juvenile delinquency, etc.
3. To provide students with academic preparation for advanced study in law, criminology, public administration and related fields. The Criminal Justice major is administered by the Department of Sociology/Criminal Justice, which also administers the Sociology and Gerontology degree programs. An advisory board of community leaders working in the field of criminal justice has been established to work with University students, faculty and administrators.

Minor in Criminal Justice

The minor in Criminal Justice requires 18 credits. There are three required courses: SOC 110: Introduction to Sociology, CJ 110: Introduction to Criminal Justice and S/CJ 213: Criminology. The following elective courses are strongly recommended by the department in the Criminal Justice sequence: S/CJ 212: Criminological Research, S/CJ 214: Juvenile Delinquency, S/CJ 210: Law and Society, and CJ 312: Criminal Law.

Course Descriptions

CJ 110 3 cr.
(S) Introduction to Criminal Justice
A foundation course examining problems in the study of crime and criminal justice, basic elements of criminal law and constitutional rights, and the functions of, as well as the relationship between, major components of the criminal-justice system; agencies and role of law enforcement; prosecution; the judicial process, and corrections.

Criminal Justice Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	CJ 110–S/CJ 213	Intro. to Crim. Just.–Criminology	3	3
COGNATE	SOC 110	Intro to Sociology	3	
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE T/RS	T/RS 121	Theology I		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	S/CJ 210	Law and Society	3	
MAJOR	S/CJ 218–S/CJ 220	Amer. Court System–Penology	3	3
MAJOR	S/CJ 212	Criminological Research	3	
GE QUAN	S/CJ 215	Statistics for the Social Sciences		3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL	PHIL 210	Ethics	3	
GE T/RS	T/RS 122	Theology II		3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	CJ ELECT	Criminal Justice Electives	3	3
COGNATE	SOC 224	American Minority Groups	3	
COGNATE	SOC SCI ELECT[1]	Social Science Electives	3	6
GE S/BH	PS 131	American National Government II		3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE ELECT	ELECT2	Free Electives	6	3
			18	18
Fourth Year				
MAJOR	CJ ELECT	Criminal Justice Electives	3	6
MAJOR	CJ 480–481 or ELECT	Internships or Electives	3	3
COGNATE	ELECT[1]	Social Science Electives	3	6
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE ELECT	ELECT[2]	Free Elective	3	
			15	15

TOTAL: 130 CREDITS

[1] *The department recommends PS 135: State and Local Government, PSYC 225: Abnormal Psychology, PSYC 224: Personality, SOC 116: Community Organization, SOC 118: Child Welfare, SOC 231: Urban Sociology, SOC 228: Social Psychology.*

[2] *In the elective area, if the student is considering general business as a minor, the department strongly recommends ACC 253: Financial Accounting, ACC 254: Managerial Accounting and MGT 351: Principles of Management I.*

S/CJ 210 3 cr.
(S) Law and Society
The relationship between law and society, or the interaction of legal and social variables. Examines jurisprudential and social theories of law; development of law; the role of the legal profession; legal behavior and decision making; and law and social change.

S/CJ 212 3 cr.
Criminological Research
Survey of methods and techniques for achieving interpretable results in research in the criminal-justice field; research design; data collection.

S/CJ 213 3 cr.
(S) Criminology
Crime as a form of deviant behavior; nature and extent of crime; past and present theories; evaluation of prevention, control and treatment programs.

S/CJ 214 3 cr.
(S) Juvenile Delinquency
Nature and extent of delinquency: competing explanatory models and theories; evaluation of prevention, control, and treatment programs.

S/CJ 215 3 cr.
(Q) Statistics for the Social Sciences
An introduction to the techniques used by social scientists to analyze their data. Students learn descriptive and inferential statistics in conjunction with computer usage. Basic skills and procedures are taught for organizing and describing data, assessing relationships among social variables, and using this information to make inferences about the population.

S/CJ 218 3 cr.
(S) The American Court System
Mindful of the role played by our judiciary in resolving disputes, setting policy, and otherwise having an impact on everyday life, this course provides a basic examination of America's courts in terms of their history and development, their structure and organization, their procedures, people, institutions and issues.

S/CJ 220 3 cr.
Penology: The American Correctional System
Analysis and evaluation of contemporary correctional systems; theories of punishment; discussion of recent research concerning the correctional institution and the various field services; the history of corrections in Pennsylvania.

S/CJ 221 3 cr.
Community-Based Corrections
Examination of community treatment in the correctional process; contemporary usage of presentence investigation, selection, supervision, release of probationers and parolees.

S/CJ 224 3 cr.
(S,W) Sociology of Deviance
Critical examination of theories and empirical studies of social deviance, focusing upon the formulation and application of deviant labels, organizations relating to deviance, and deviant behavioral patterns. Special attention given to noncriminal forms of deviance.

S/CJ 225 3 cr.
White-Collar Crime
A study of white-collar crime, including corporate misdeeds, political corruption, occupational illegalities and upperworld deviance. This course will explore the causes, consequences, and criminal-justice system response to white-collar crime.

S/CJ 226 3 cr.
(S,D) Comparative Justice Systems
An exploration of the meaning and character of justice, law and crime in different cultures and countries, and of evolving global standards and patterns of justice, international law, and transnational crime, making specific comparisons between Western and Eastern nations, capitalist and socialist systems, and countries having much crime and little crime.

S/CJ 227 3 cr.
Organized Crime Patterns
The national and international organizational structure of organized crime will be analyzed. Primary attention will be given to comparative theories and concepts. The various methods of prosecution, investigation and control will be discussed.

CJ 230 3 cr.
Crime Prevention
This course analyzes the basic theories of community policing, problem-solving policing and crime prevention. The emphasis is on primary, secondary and tertiary prevention techniques. Emphasis will be given to the various analytical approaches to the study of criminal profiling, terrorism and methods of planning.

S/CJ 232 3 cr.
Public Safety Administration
An overview of the public-safety field – its philosophy, disciplines and research. The course focuses on an examination of the police and governmental responses to disaster and accidents. A primary emphasis is given to the various analytical approaches to the study of terrorism. Methods of planning, investigation and prevention are discussed.

S/CJ 234 3 cr.
Criminal-Justice Management
This course surveys major trends in law enforcement including leadership, management, and administration. It includes discussion of police personnel issues, computerized training programs and police health issues. The emphasis is on critical thinking, problem solving and contemporary policing practices.

CJ 237 3 cr.
The Investigative Process
This course considers appropriate investigative procedures concerning major criminal investigations. An analysis of specific investigative theories and courtroom applications will be conducted through learning simulation. The homicide court problem will focus on the preservation and admission of evidence.

S/CJ 284 3 cr.
Special Topics in Criminal Justice
(Prerequisite: Permission of chairperson and insrructor) Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum.

CJ 310 3 cr.
Criminal Justice Process
A study of the law of criminal procedure, treating investigation and police practices, preliminary proceedings, and trial, as they relate to the development and structure of the American criminal-justice system and as they affect offenders.

CJ 312 3 cr.
Criminal Law
A study of substantive criminal law in view of its historical foundations, purpose, functions and limits; of crime and defenses generally; and of the elements which constitute certain specific crimes under state and federal statutes.

S/CJ 314 3 cr.
The Bill of Rights and Criminal Justice
From the perspective of the criminal-justice professional, this course addresses key principles enunciated in the first, fourth, fifth, sixth, eighth and fourteenth amendments to the Constitution of the United States.

S/CJ 316 3 cr.
Principles of Evidence
An examination of the law of evidence pertaining to the trial of a criminal case. A discussion of the common law, pertinent statutes, judicial opinions, and rules (e.g., the Federal Rules of Evidence) relating to: direct and circumstantial evidence; opinion testimony; exhibits; competence, relevance, materiality; privileges; and hearsay and its exceptions.

S/CJ 317 3 cr.
Trial, Jury and Counsel
A consideration of the rights guaranteed by the Sixth Amendment to The Constitution of the United States, surveying constitutional provisions, statutes, court rules, and cases concerning the right of a criminal defendant to a speedy and public trial, to trial by jury, and to the assistance of counsel.

S/CJ 318 3 cr.
Civil Liability
An examination of the law-enforcement officer or employee as a defendant in a civil suit arising from the scope of his or her employment. Liability based upon rights statutes is examined, along with consideration of the typical defenses.

S/CJ 324 3 cr.
Victimology
An examination of the causes and consequences of crime victimization. The recent emergence of the study of the victim, the types and circumstances of victimization, and the nature of the criminal-justice system's response to crime victims are considered, along with the ethical and practical dimensions of crime victimization.

CJ 382-383 3 cr.
Independent Study in Criminal Justice
(Prerequisite: Permission of chairperson and instructor) Directed projects and surveys in criminal justice, law enforcement, and corrections designed to give the student academic flexibility.

CJ 480-481 3 cr.
Internship Experience
(Prerequisite: Permission of instructor) Supervised experiential learning in an approved criminal-justice setting, taken preferably in junior and senior year.

ECONOMICS

Satyajit Ghosh, Ph.D., *Chair*
See Economics (KSOM) for faculty listing.

Overview

The Arts and Sciences major in Economics offers students a strong general liberal-arts background and at the same time a thorough grounding in the most quantitative of the social sciences. Its major requirements parallel those of The Kania School of Management Economics major (see p. 212), while its cognate provides background in the social sciences. The major in Economics equips students with the training and background needed to assume responsible, decision-making positions in the financial sector, industries and government service. It is especially appropriate for students intending graduate studies in Economics or careers in law.

Minor in Economics

18 credits consisting of ECO 153-154 (or ECO 101, 102); ECO 361-362, plus two upper-level economics courses.

Economics Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE S/BH)	ECO 153–154	Principles of Micro–Macro Economics	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE T/RS	T/RS 121	Theology I		3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option	3	3
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16	16
Second Year				
MAJOR	ECO 361–362	Intermediate Micro–Macro Econ.	3	3
MAJOR	STAT 253	Statistics for Economics		3
COGNATE	ACC 253	Financial Accounting	3	
COGNATE	ELECT	Cognate Elective		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humn. Electives (HIST 110–111 recomm.)	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	ECO/IB 351	Environment of Intetnational Business	3	
MAJOR	ECO ELECT	Economics Elective	3	6
COGNATE	FIN 351	Intro. to Finance		3
COGNATE	ELECT[4]	Cognate Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE ELECT	ELECT	Free Elective	3	3
			15	15
Fourth Year				
MAJOR	ECO 460	Monetary and Financial Economics	3	
MAJOR	ECO ELECT–ECO 490	Eco. Elective–Seminar	3	3
COGNATE	ELECT[4]	Cognate Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Electives	3	6
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 130 CREDITS

[1] *See note on Math Options, page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *Economics majors may apply up to 6 cognate credits toward a Math minor. Students taking the sequence open to Math majors are strongly urged to complete the calculus sequence by taking MATH 222, particularly if they plan on pursuing graduate studies.*

Economics majors in the College of Arts and Sciences will apply their elective cognate credits to the following areas (exceptions require the permission of the CAS Dean): Political Science, Psychology, Public Administration, Sociology. Nine credits must be in the same field.

ENGINEERING

Robert A. Spalletta, Ph.D., *Director*
See Physics for faculty listing.

Overview

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is judiciously applied to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind. A number of majors are available.

Computer Engineering

The undergraduate Computer Engineering curriculum is broad-based with continually updated content in computers, engineering science, and engineering design. The objectives of this program are to prepare our students for a professional career in computer engineering and to prepare them for advanced study in computer engineering, computer science, or electrical engineering. The technical core of the program emphasizes theoretical and laboratory skills, hardware and software skills, simulation and design.

Students in the Computer Engineering program study basic science, mathematics, computer science, electrical engineering, design, writing, public speaking, and the liberal arts in order to prepare for a professional career or advanced studies. The program includes courses from the programs of Computer Science and Electrical Engineering, providing balanced coverage and integration of the hardware and software aspects of computer systems. The design process is emphasized throughout all four years, and design projects are included in all laboratory courses. The sophomore and junior years include core courses in computer algorithms, digital system design, computer architectures, microprocessor systems, computer interfacing, and programming. These courses provide a foundation for the senior year, which includes electives and an in-depth two-semester design project.

Career opportunities in computer engineering range from computer applications such as computational medicine, oceanic engineering, and office automation to robotics, software engineering systems design, graduate study, reliability and other applications such as neural networks.

Electrical Engineering

The Electrical Engineering major of the Department of Physics/EE prepares the student for the analysis and design of electronic systems and devices whose principal functions are the shaping and control of information. The Department of Physics/EE offers four areas of focus: Computer Engineering, Biomedical Engineering, Optical Engineering, and Environmental Instrumentation Engineering. The specific electives for these areas of focus will be chosen in consultation with the student's academic advisor.

Electronics-Business

The state of the business world today is such that a major portion of its administrative effort must be geared to the supervision of persons engaged in complex technological processes often involving applications of electronics. As a consequence, the ideal administrator is now one who is conversant with both good business practice and technological know-how. The Electronics-Business major provides a student with a program of carefully selected business and economics courses coupled with a series of coordinated physics and electrical engineering courses so as to provide preparation for an administrative career in an electronically oriented business enterprise. The program also provides sufficient preparation for further studies leading to the Master of Business Administration.

Pre-Engineering

The University provides a pre-engineering program which introduces the student to the highly technical training necessary for all phases of the engineering profession. This is a two-year course of study which enables the student to transfer to another school to complete his or her degree work.

Of special importance is The University of Scranton's association with the Cooperative Engineering Program at the University of Detroit Mercy, and its programs in chemical, civil, electrical, environmental, and mechanical engineering. For the student who has completed the pre-engineering curriculum at The University of Scranton, the Detroit

Mercy three-year cooperative program offers alternate semesters of formal instruction and work experience in industry. A direct transfer program is available with Widener College, which may be either a co-op program beginning in the summer preceding the junior year or a regular two-year program. In addition to the valuable experience gained from industry, many students have been able to pay the cost of their tuition from the remuneration received for their work. This amounts to a substantial equivalent scholarship grant. Other schools into which University of Scranton students transfer include Lehigh, Bucknell, Penn State and Drexel.

Generally, different engineering programs have slightly different requirements which must be completed before starting the junior year. These will vary from school to school. Therefore, students should, before beginning the sophomore year, consult with an advisor at the institution at which they plan to complete their studies.

Course Descriptions

ENGR 250 **3 cr.**
Engineering Mechanics-Statics
(Prerequisite: PHYS 140; pre- or co-requisite: MATH 221) Various types of force systems; resultants and conditions of translational and rotational equilibrium; stress analysis of the parts of different types of structures by graphical, algebraic and vector methods; frictional forces; centroids and second moments of areas of solids. Three hours lecture.

ENGR 251 **3 cr.**
Engineering Mechanics-Dynamics
(Prerequisite: ENGR 250; pre- or co-requisite: MATH 222) Kinematics of particles and rigid bodies which include linear, curvilinear, angular and relative motions; inertia forces, impulse, momentum, work, energy and power; mechanical vibrations. Three hours lecture.

ENGR 252 **3 cr.**
Solid State Materials Science
(Prerequisites: PHYS 270, MATH 222) The crystalline state of matter; multielectron atoms and the band theory of solids; quantum statistics; applications to p-n junction diodes including photodetectors, LEDs and photovoltaics; biopolar and field-effect transistors; transistor modeling. Three hours lecture.

ENGR 253 **1 cr.**
An Introduction to Computer-Aided Design
(Prerequisites: MATH 114, CMPS 134) This course is an introduction to the methods of drafting and design using computer-aided techniques. Topics to be covered include plane geometry construction, projection theory, sectional views, dimensioning, tolerancing and the development of working drawings. Extensive use will be made of commercially available CAD software packages. Two hours laboratory.

ENGR 254 **1 cr.**
3D Computer-Aided Design
(Prerequisite: ENGR 253) Advanced computer-aided design lab with emphasis on three-dimensional techniques. Topics include wireframe and solid modeling, rendering and Boolean operations and use of a finite-element program for mechanical analysis of CAD designs. Extensive use will be made of commercially available software packages. Two hours laboratory.

ENGR 350 **3 cr.**
Applied and Engineering Mathematics
(Prerequisite: MATH 222, PHYS 141) First- and second-order differential equations with constant coefficients; Fourier series, Fourier transforms and Laplace transforms; partial differential equations and boundary-value problems; special functions (e.g., Bessel functions and Legendre polynomials); numerical analysis and use of maple software. (Also listed as PHYS 350.) Three hours lecture.

ENGR 352 **3 cr.**
Statistical and Engineering Thermodynamics
(Prerequisite: PHYS 270) Derivation of Thermo-dynamics from probability theory and atomic physics; Laws of Thermodynamics; Maxwell relations; chemical potential and phase changes; refrigerators and heat pumps; theory of gasses and theory of solids. Special topics dependent upon interests of majors represented. (Also listed as PHYS 352.) Three hours lecture.

E/CE 240 **3 cr.**
Introduction to Computer Engineering
(Formerly EE 240) Introduction to combinational and sequential digital-logic circuits. Analysis and design techniques including Boolean algebra and Karnaugh mapping. Use of the computer to simulate digital circuits. Three hours lecture.

EE 241 **4 cr.**
Circuit Analysis
(Prerequisite: PHYS 141; pre- or co-requisite: MATH 222) Intermediate course treating Kirch-

Computer Engineering Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
COGNATE	PHYS 140–141	Elements of Physics I–II	4	4
COGNATE	CMPS 134–144	Computer Science I–II	3	4
COGNATE	MATH 142–114	Discrete Structures–Analysis I	4	4
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE WRTG	WRTG 107	Composition		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE PHED	PHED ELECT	Physical Education	1	
			16	18
Second Year				
MAJOR	E/CE 240–EE 241	Intro. to Comp. Eng. I–Circuit Analysis	3	4
COGNATE	PHYS 270	Modern Physics	4	
COGNATE	EE 243L	Digital System Design Lab		2
COGNATE	MATH 221–222	Analysis II–III	4	4
COGNATE	CMPS 240	Data Structures	3	
MAJOR	CMPS 250	Machine Organization		3
GE PHIL-T/RS	PHIL 120–210	Introduction to Philosophy–Ethics	3	3
GE PHED	PHED ELECT	Physical Education	1	
GE SPCH	COMM 100	Public Speaking		3
			18	19
Third Year				
MAJOR	EE 343–344	Electronic Circuits I–II	5	3
MAJOR	ENGR 350	Applied & Engineering Math	3	
MAJOR	EE 346	Digital Signal Processing		3
MAJOR	CMPS 350–E/CE 340	Computer Architecture–Digital Systems	3	3
COGNATE	CHEM 112	General and Analytical Chemistry	4.5	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE S/BH1	S/BH ELECT[1]	Social/Behavioral Electives	3	3
GE PHIL-T/RS	T/RS 121	Theology I		3
			18.5	18
Fourth Year				
MAJOR	EE 449	Computer Interfacing	5	
MAJOR	EE 450–454	Control Systems–Robotics Design	3	3
MAJOR	CMPS 374	Fundamentals of Software Engineering		3
COGNATE	ENGR 250	Engineering Mechanics–Statics	3	
MAJOR	CMPS 352[2]–344	Operating Systems–Programming Langs	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE PHIL-T/RS	T/RS 122	Theology II	3	
GE HUMN	HUMN ELECT	Humanities Electives		6
GE PHED	PHED ELECT	Physical Education	1	
			18	18

TOTAL: 143.5 CREDITS

[1] *ECO 153-154 suggested*

[2] *Or technical elective in Physics (PHYS 372, 447, 460, 473, 474)*

hoff's Laws, resistive networks, systematic methods, network theorems, first-and second-order transients, and sinusoidal steady-state. Introduction to SPICE. Three hours lecture and two hours laboratory.

EE 243L 3 cr.
Digital System Design Laboratory
(Formerly EE 345L) Introduction to the design, construction and testing of digital logic circuits. Most of the major components of a computer will be investigated. Use of computer program to draw circuits and designs. Three hours laboratory.

E/CE 340 3 cr.
Digital Systems
(Prerequisites: E/CE 240, MATH 142, CMPS 350) Analysis and design of advanced digital circuits, minimization techniques, combinational and sequential circuit design and numerical techniques. The interdependence of hardware and software on computer design will be stressed.

Electronics-Business Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (S/BH)	ECO 153–154	Prin. of Micro.–Macro. Economics	3	3
COGNATE (GE QUAN)	MATH 103–114 or MATH 114–221	Pre-Calculus.–Analysis I OR Analysis I–II	4	4
COGNATE (GE NSCI)	PHYS 140–141	Elements of Physics I–II	4	4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL	PHIL 120	Introduction to Philosophy		3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			18	18
Second Year				
MAJOR	E/CE 240	Introduction to Computer Engineering	4	
MAJOR	EE 241	Circuit Analysis		4
MAJOR	ACC 253–254	Fin. Accounting–Managerial Accounting	3	3
MAJOR	ENGR 252	Solid State Material Science		3
COGNATE	PHYS 270	Elements of Modern Physics	4	
COGNATE	MATH 221–222 or MATH 222–341	Analysis II–III OR Analysis III–Differential Equations	4	4
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE PHED	PHED ELECT	Physical Education		1
			18	15
Third Year				
MAJOR	EE 343–344	Electronic Circuits I–II	5	3
MAJOR	STAT 251–252	Statistics for Business I–II	3	3
GE PHIL	PHIL 210	Ethics	3	
GE T/RS	T/RS 121–122	Theology I–II	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE PHED	PHED ELECT	Physical Education		1
			17	16
Fourth Year				
MAJOR	MGT 351	Principles of Management I	3	
MAJOR	MKT 351	Introduction to Marketing		3
MAJOR	FIN 351	Introduction to Finance	3	
MAJOR	OIM 352	Introduction to Operations Management		3
MAJOR	OIM 351	Introduction to Management Science	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT	Free Electives	6	6
			15	15

TOTAL: 132 CREDITS

EE 343 — **3 cr.**
Electronic Circuits I
(Prerequisites: EE 241, ENGR 252) Analysis and design of analog electronic circuits using diodes, BJTs, and FETs. Emphasis is placed on amplifier circuits and their frequency dependence. Three hours lecture.

EE 343L — **2 cr.**
Electronic Circuits I Lab
(Co-requisite: EE 343) Experiments with diodes, BJTs, JFETs and MOSFETs. Some of the experiments are short projects to introduce the student to the application of design principles. Three hours laboratory.

EE 344 — **3 cr.**
Electronic Circuits II
(Prerequisite: EE 343, EE 343L) Laboratory-oriented course designed to acquaint students with the operation and design of electronic instrumentation. Analysis of electronic instruments used in various applications and the design of special-purpose instrumentation. Emphasis on use of operational amplifiers in design situations. One hour lecture and three hours laboratory.

EE 346 — **3 cr.**
Digital Signal Processing
(Prerequisites: EE 240, EE 241) A study of discrete-time signals and systems, convolution, z-transform, discrete Fourier transform, and FFT

Electrical Engineering Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
COGNATE (GE NSCI)	PHYS 140–141	Elements of Physics I–II	4	4
COGNATE (GE QUAN)	MATH 114–221	Analysis I–II	4	4
GE WRTG–SPCH	WRTG 107– COMM 100	Composition–Public Speaking	3	3
GE C/IL–ELECT	C/IL 102–CMPS 134	Comp. & Info. Lit.–Intro. to CMPS	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			18	18
Second Year				
MAJOR	E/CE 240–EE 241	Intro to Computer Engr.–Circuit Analysis	3	4
MAJOR	EE 243L	Digital System Design Lab		2
COGNATE	ENGR 250–252	Statics–Solid State Materials	3	3
COGNATE	ENGR 253–254	Intro. to CAD–3D CAD	1	1
COGNATE	PHYS 270	Elements of Modern Physics	4	
COGNATE	MATH 222–341	Analysis III–Differential Equations	4	4
COGNATE	CHEM 112	General and Analytical Chemistry	3	
GE PHIL	PHIL 210	Ethics		3
			18	17
Third Year				
MAJOR	EE 447–448	Electromagnetics I–II	3	4
MAJOR	EE 343–344	Electronic Circuits I–II	5	3
MAJOR	EE 346	Digital Signal Processing		3
COGNATE	ELECT[1]	Elective		3
COGNATE	ENGR 350	Applied and Engineering Math	3	
GE T/RS	T/RS 122	Theology II	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHED	PHED ELECT	Physical Education		1
			17	17
Fourth Year				
MAJOR	EE 449	Computer Interfacing	5	
MAJOR	EE 451	Communications Systems		3
MAJOR	EE 450	Control Systems	3	
MAJOR	EE 452–453	VLSI I–II	2	2
MAJOR	EE 454	Robotics Design Project		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE S/BH	S/BH ELECT[2]	Social/Behavioral Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE PHED	PHED ELECT	Physical Education	1	
			17	17

TOTAL: 139 CREDITS

[1] *An advanced technical elective approved by the department.*
[2] *ECO 101 is recommended by the department.*

algorithms. Analysis and design techniques for digital filters and their realizations. Emphasis will be on the use of computer-aided interactive digital- signal processing programs for several projects on signal analysis and filter design. Three hours lecture.

EE 447 **3 cr.**
Electromagnetics I
(Prerequisites: PHYS 270, ENGR 350) Analytic treatment of electrical and magnetic theory; vector calculus of electrostatic fields; dielectric materials; vector calculus of magnetic fields. (Also listed as PHYS 447.) Three hours lecture.

EE 448 **3 cr.**
Electromagnetics II
(Prerequisite: EE 447) Magnetic materials, electromagnetic induction, displacement currents, Maxwell's equations; radiation and waves; applications include transmission lines, wave guides, and antennas. (Also listed as PHYS 448.) Three hours lecture.

EE 448L **1 cr.**
Electromagnetics Design Laboratory
(Co-requisite: EE 448) Laboratory designed to emphasize and reinforce the experimental basis of electromagnetism. Multi-week projects

Pre-Engineering Transfer Program Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
COGNATE (GE NSCI)	PHYS 140–141	Elements of Physics I–II	4	4
COGNATE	CMPS 134	Computer Science I		3
COGNATE (GE QUAN)	MATH 114–221	Analysis I–II	4	4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL102	Computing and Information Literacy	3	
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE T/RS	T/RS 121	Theology I		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			18	18
Second Year				
MAJOR	EE 240	Introduction to Digital Circuits	3	
MAJOR	EE 241	Circuit Analysis		4
MAJOR	ENGR 250–252	Statics–Solid Material Science	3	3
MAJOR	ENGR 253–254	Introduction to CAD–3-D CAD	1	1
COGNATE	PHYS 270	Elements of Modern Physics	4	
COGNATE	MATH 222–341	Analysis II–Diff. Equations	4	4
COGNATE	CHEM 112–113[1]	General & Analytical Chem I–II	3	3
GE ELECT	ELECT	Free Elective		3
			18	18

TOTAL: 72 CREDITS

[1] *EE Major Elective may be substituted for CHEM 113.*

require the student to perform experiments that measure fundamental electrical constants, the electrical and magnetic properties of matter, and the properties of electromagnetic waves. (Also listed as PHYS 448L.) Two hours laboratory.

EE 449 5 cr.
Computer Interfacing
(Prerequisites: EE 344, EE 346) Microprocessor programming and interfacing; data acquisition, manipulation and transmission; microprocessor support devices and common computer interfaces. Periodic written and oral presentations are required. Three hours lecture and four hours laboratory.

EE 450 3 cr.
Control Systems
(Prerequisites: EE 344, ENGR 350) Review of system modeling and Laplace Transforms; block diagram reduction and signal-flow graphs; transient and steady-state control-sysrem characteristics; root locus and frequency-response methods of analysis and compensation design; state variable methods. Three hours lecture.

EE 451 3 cr.
Communication Systems
(Prerequisites: EE 344, ENGR 350) A study of the principles of communication theory with emphasis given to analog and digital communications. Modulation techniques such as AM, DSB, SSB, and FM are discussed in detail. Performance of these systems in the presence of noise is also studied. Three hours lecture.

EE 452 2 cr.
Very Large Scale Integration Devices I
(Prerequisites: EE 240, EE 344) Analysis of MOSFET and CMOS circuitry. Use of computer programs such as SPICE and OCTTOOLS to design and analyze student design projects involving tens of transistors. Two hours lecture.

EE 453 2 cr.
Very-Large-Scale Integration Devices II
(Prerequisite: EE 452) Continuation of EE 452. VLSI computer compilers are used to design electronic circuits. One hour lecture and two hours laboratory.

EE 454 3 cr.
Robotics Design Project and Professional Practice
(Prerequisites: EE 449, EE 450) Students design a self-contained intelligent robot required to carry out a complex task. Each project involves creative conception, design, development, evaluation, economic constraints, reliability and safety. Written and oral presentations. One hour lecture and three hours laboratory.

EE 484 3 cr.
Superconductivity Devices and Circuits
(Prerequisites: EE 447, ENGR 252) A course designed for students with interest in superconductivity. Strong background in calculus, electromagnetics and solid-state devices is necessary. Topics to be discussed: perfect conductivity, the classical model of superconductivity, and direct applications; the quantum model of superconductivity, Josephson junctions and superconducting devices (SQUIDs). Group projects (literature search and brief presentations at the end of the term) are assigned.

ENGLISH

Faculty

Jones DeRitter, Ph.D., *Chair*
Rebecca S. Beal, Ph.D.
Ellen M. Casey, Ph.D.
Daniel V. Fraustino, Ph.D.
Michael Friedman, Ph.D.
Antoinette Gail Glover, Ph.D.
Leonard G. Gougeon, Ph.D.
John M. Hill, M.F.A.
Francis X. Jordan, Ph.D.
Richard A. Larsen, M.F.A., *Program Director for Theatre*
John M. McInerney, Ph.D.
Michael T. O'Steen, M.F.A.
Richard H. Passon, Ph.D.
Joseph L. Quinn, S.J., Ph.D.
William Rakauskas, Ed.D.
Carl M. Schaffer, M.F.A.
Stephen E. Whittaker, Ph.D.

Overview

The English Department offers courses in literature, theatre, writing, film, pedagogy, and theory. Courses are designated as English (ENLT), Theatre (THTR) and Writing (WRTG) and are described below under these groupings. In addition to the majors in English and Theatre described in the following section, the department offers minors in English, Theatre, and Writing. If they wish, English majors may pursue either minors or tracks in Theatre and Writing. English majors pursuing tracks in Writing or Theatre may place these courses in either the elective or cognate area of the major. English majors pursuing minors in Writing or Theatre may place these courses in the cognate area but not in the elective area of the major. (Courses used for a minor cannot be applied to requirements or electives within the major.)

English Major

The student majoring in English must take ENLT 140: English Inquiry or the equivalent, and twelve other courses designated ENLT, THTR, or WRTG. Students are required to take at least one course in each of the following areas:

A. British Literature: Medieval and Renaissance (ENLT 234, 235, 240, 340, 342, 343)
B. British Literature: Restoration and Eighteenth Century (ENLT 241, 345)
C. British Literature: Romantic and Victorian (ENLT 236, 237, 242, 347, HUM 286)
D. American Literature to 1865 (ENLT 212, 230, 243, 350, 351)
E. Modern British Literature (ENLT 239, 244, 361)
F. American Literature, 1865 to the Present (ENLT 245, 353, 355, 455)

In addition, of the twelve courses beyond ENLT 140 or the equivalent, at least one must be at the 300 level, at least one must be a 400-level senior seminar, at least one more must be at the 300 or 400 level, and at least one must be designated Theory Intensive: ENLT 225, 228, 341, 462. Students may place Theatre and/or Writing courses in either the English major or the cognate area, but no course can be counted for both the major and the cognate.

Although the English department strongly recommends ENLT 140 as the initial course in the major, any ENLT course numbered from 120 to 179 may serve as an equivalent and be substituted both in the major and as a prerequisite for more advanced course work. A total of no more than two courses with a number between 120 and 179 can be counted toward the major.

Theatre Track

Completion of this track will be noted on the English major's transcript. The student must complete a minimum of five courses (15 credits) toward the track. Courses counted toward the track include any course designated

with the THTR prefix; WRTG 215, 217, 315; and ENLT 211, 220, 295, 340, 341, 345, 355.

Writing Track

Completion of this track will be noted on the English major's transcript. The student must complete a minimum of five courses (15 credits) designated with the WRTG prefix and numbered at the 200 level or above. Of these five courses, at least one must be in Creative Writing (WRTG 213, 214, 215, 216, 217, 313, 314, 315, 316), and at least one must be in Applied Writing (WRTG 210, 211, 212).

Theatre Major

As a major existing within the English Department, Theatre offers a broad-based liberal arts degree for the theatre generalist. The Theatre major prepares the student for further, more focused training in the theatrical arts through a wide variety of courses in performance arts, technical theatre, design arts, directing, theatre history, playwriting and dramatic literature. Students may focus their programs of study to some degree toward specific interests in these areas of theatre through the use of electives within the major.

Theatre majors are strongly encouraged to complete either a minor (perhaps in English or Writing) or a second major (perhaps in English). Other combinations are possible.

Theatre majors are required to participate in University Players productions; Theatre minors are strongly encouraged to do so. All students with an interest in theatre, whatever their major, are invited to participate in University Players productions. (See also "Theatre" under Extracurricular Activities.)

Students majoring in Theatre are required to take three introductory courses in Theatre, Acting, and Technical Theatre (THTR 110, 111, 112), two Theatre History courses (THTR 211, 212), Design for the Theatre (THTR 213), Directing I (THTR 311), and 5 credits of Production Laboratory (THTR 280, 380). Four elective courses in Theatre round out the major. Introduction to Drama (ENLT 122), and at least one other course in Dramatic Literature are required in the student's cognate area. Courses which would satisfy the Dramatic Literature requirement include ENLT 211, 220, 295, 340, 341, 345, 355, 461.

Minors within the English Department

English Minor

To minor in English, the student must take a minimum of six courses (18 credits). One of these courses must be ENLT 140 or the equivalent (see above). The remaining 15 credits must be taken in courses that would satisfy area or elective requirements for the major. No more than two courses with a number between 120 and 179 may be counted toward the minor.

Theatre Minor

To minor in Theatre, the student must take a minimum of six courses (18 credits). Three courses are required: THTR 110, THTR 111 and either THTR 211 or THTR 212. Elective courses counted toward the minor include any course with the THTR prefix and/or WRTG 215, 217, or 315. The student may also include one of the following literature courses: ENLT 122, 211, 220, 295, 340, 341, 345, 355, 461.

Writing Minor

To minor in Writing, the student must take a minimum of six courses (18 credits). All six courses must carry the WRTG prefix, and all six must be listed at the 200 level or above. The student must take at least one course in Creative Writing (WRTG 213, 214, 215, 216, 217, 313, 314, 315, 316) and one course in Applied Writing (WRTG 210, 211, 212).

Course Descriptions

Literature

ENLT 103 — 3 cr.
Children's Literature
A broad study of literature for children since 1800, with the emphasis on American works since 1950, including aesthetic consideration of the art and design of picture books. Works for children up to the age of 12 are considered.

ENLT 110 — 3 cr.
History of Cinema
A study of the historical development of motion pictures. Practitioners in America and throughout the world are treated in this concise history of cinema. Film screening fee.

English Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	ENLT 140	English Inquiry	3	
MAJOR	ENLT	Area Requirement		3
MAJOR	ENLT-WRTG-THTR	Major Elective		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE QUAN	QUAN ELECT	Quantitative Reasoning Elective		3
GE WRTG	WRTG 107	Composition	3	
GE COMM	COMM 100	Public Speaking		3
GE C/IL	C/IL 103	Computing & Information Literacy	3	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16	16
Second Year				
MAJOR	ENLT	Area Requirement	3	3
MAJOR	ENLT-WRTG-THTR	Area Requirement and/or Elective	3	3
COGNATE	ELECT	Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	ENLT	Area Requirement	3	3
MAJOR	ENLT-WRTG-THTR	Area Requirement and/or Elective		3
COGNATE	ELECT	Electives	6	6
GE PHIL-T/RS	PHIL 210–T/RS 122	Elective	3	
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
			18	18
Fourth Year				
MAJOR	ENLT 490 or 491	Senior Seminar	3	
MAJOR	ENLT-WRTG-THTR	Area Requirement and/or Electives	3	3
COGNATE	ELECT	Electives	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT	Free Electives	6	6
			15	15

TOTAL: 130 CREDITS

ENLT 111 3 cr.
The Art of Cinema
The study of the artists, technicians and businessmen who make films. Taped interviews of internationally famous filmmakers, as well as an analytic scrutiny of modern films, develop students' intelligent, active participation in the major art form in modern culture. Film screening fee.

ENLT 112 3 cr.
Film Genres
A study of popular film genres (i.e., the western, the thriller, the musical, the historical epic, the woman's picture) as they developed and changed in the U.S. and abroad. Film screening fee.

ENLT 113 3 cr.
Film Criticism
A study of the grammar, poetics, rhetoric, and aesthetic of film criticism constitutes the heart of this course. Film screening fee.

ENLT 120 3 cr.
(CL) Introduction to Fiction
An exploration of the nature of prose fiction, its elements and techniques. The emphasis is critical rather than historical. The range of works and the specific selections may vary with the individual instructor.

ENLT 121 3 cr.
(CL) Introduction to Poetry
An exploration of the nature of poetry, its value, aims, and techniques. The emphasis will be critical rather than historical. The range of poems and the specific selections may vary with the individual instructor.

ENLT 122 3 cr.
(CL) Introduction to Drama
An exploration of the nature of drama, its types, techniques, and conventions. The emphasis will be critical rather than historical. The range of

plays and the specific selections may vary with the individual instructor. This course may be counted toward the Theatre major, minor or track.

ENLT 123 3 cr.
Masterworks of Western Civilization
Study of masterpieces of literature from the Hebrew Old Testament and classic Greek to the modern European, illuminating the development of Western civilization.

ENLT 125 3 cr.
(CL) Classic American Stories
This course will examine representative examples of the American short story from the 19th century to the present. Emphasis will be placed on the significance of individual works, but some consideration will be given to the evolving American milieu. Readings will include Hawthorne, Poe, Crane, Malamud, and Oates.

ENLT 126 3 cr.
(CL,D) Introduction to Irish Culture
An exploration of Irish culture by means of the island's major works of mythology, history, religion, folk story, fairy tale, song, verse, drama and fiction. All readings in English.

ENLT 127 3 cr.
(CL) Myth of the Hero
Mythic materials are examined to discover the underlying heroic archetypal patterns. Then modern literature is examined in the light of the same mythic patterns.

ENLT 140 3 cr.
(CL) English Inquiry
An exploration of fiction, poetry, and drama. The approach is inductive; the aims are a greater understanding of literature, and an introduction to techniques of literary scholarship, theory, and research.

The prerequisite for all 200-level ENLT courses is ENLT 140 or the equivalent. Students must complete the University's Written Communication requirement before they can register for any Writing Intensive literature course.

ENLT 210 3 cr.
(CL) Modern Poetry
Some previous study of poetry expected. Modern poets ranging from Frost and Stevens to Bishop and Larkin are examined. Major emphasis is placed on close readings of representative works and historical and cultural contextualization.

ENLT 211 3 cr.
(CL) Dramatic Comedy
Principles, modes, tactics used in dramatic comedy. The plays of writers ranging from Shakespeare to Neil Simon, as well as several films, will be analyzed as models. Opportunity for student writing of comedy. This course may be counted toward the Theatre major, minor or track.

ENLT 212 3 cr.
(CL,W) Masters of Darkness
This course will survey a significant sampling of the short works of three of America's most famous "dark Romantic" writers: Melville, Hawthorne, and Poe. Consideration will be given to the historical milieu and the authors' responses to the problems and promises of the American experience.

ENLT 213 3 cr.
(CL,W) Satire
An exploration of the historical, critical, and conceptual nature of satire, including established satirical conventions and techniques. Representative examples in fiction, drama, poetry, and other media, with emphasis on British literature of the Restoration and 18th century, the Age of Satire.

ENLT 214 3 cr.
Macabre Masterpieces
A survey of English and American horror fiction which focuses on this mode of writing as a serious artistic exploration of the human mind, particularly abnormal psychology. Readings will include works by Mary Shelley, Edgar Allan Poe, Robert Louis Stevenson, Joseph Conrad, and Bram Stoker.

ENLT 215 3 cr.
(CL)Literature of the Absurd
Focusing on literature from 1850 to the present, this course will examine fiction, drama, and poetry that reflect a general sense of disintegrating values and lost religious beliefs. Readings will include works by Poe, Byron, Hardy, Stevenson, Conrad, Williams, Hemingway, and Beckett.

ENLT 220 3 cr.
(CL) Shakespeare
An introduction to the works of William Shakespeare, including forays into each of the major dramatic genres (comedy, tragedy, history, and romance). Consideration will be given to the biographical and cultural contexts of individual works. This course may be counted toward the Theatre major, minor or track.

ENLT 221 3 cr.
(W) Woody Allen
This course examines the films, the published screenplays, the volumes of short prose, and assorted interviews and articles. We will examine some of Woody Allen's sources, such as Plato, Shakespeare, Joyce, and Bergman. Our approach will be historical and analytical.

ENLT 222 3 cr.
(CL,D,W) Graham Greene's Travellers
Detailed study of several privileged characters who exchange the familiar comforts of home for the disorienting complexities of the post-colonial world. Encountering social unrest in Africa, Latin America, Haiti, and French Indo-China, Greene's protagonists abandon their aloof positions and confront the personal and ethical dilemmas raised by their situations.

ENLT 224 3 cr.
(CL,W) Perspective in Literature about Illness
This course will explore the narrative conventions of both the (literary) life story and the (scientific) case history as a means of analyzing both the characters involved in literary depictions of illness and the ways in which they perceive and understand others involved in the same health care event.

ENLT 225 3 cr.
(CL,D,W) Writing Women
(Theory Intensive) This course begins with Virginia Woolf's *A Room of One's Own* and Carolyn Heilbrun's *Writing a Woman's Life*. The reading list includes a range of feminist responses to the questions raised by Woolf and Heilbrun, as well as fiction and poetry from Sappho to Willa Cather and Adrienne Rich.

ENLT 226 3 cr.
(CL,D) Novels by Women
A study of novels by and about women, including such authors as Austen, Bronte, Eliot, Chopin, Woolf, Lessing, Byatt, and Morrison. The aim is to expand students' knowledge of the novel's history and development and their understanding of women's experiences as expressed by women writers.

ENLT 227 3 cr.
(CL,D,W) Frankenstein's Forebears
(Theory Intensive) An interdisciplinary exploration of the influential lives and works of Mary Wollstonecraft (feminist, memoirist, and novelist); William Godwin (anarchist philosopher and novelist); their daughter, Mary Shelley (author of *Frankenstein*); and her husband, Percy Bysshe Shelley (Romantic poet and erstwhile political activist).

ENLT 228 3 cr.
(CL,D,W) Race in Anglo-American Culture
(Theory Intensive) This course will examine English, Anglo-American, and American portrayals of African- and Native American peoples between 1600 and 1860. The reading list includes works from both high culture (poems, plays, and novels) and low culture (Indian captivity narratives, frontier biographies, and slave autobiographies).

ENLT 229 3 cr.
(CL,D) The Cross-Cultural Novella
This course aims both to foster an understanding and appreciation of the novella as a distinct literary form and to introduce the student to the literature of a variety of continents and cultures. The course will deal with writers such as Tolstoy, Flaubert, Kafka, Kawabata, Mann, and Gaines.

ENLT 230 3 cr.
(CL) American Romanticism
This course will deal with representative short works of America's six major Romantic authors: Emerson, Thoreau, Whitman, Hawthorne, Melville, and Poe.

ENLT 234 3 cr.
(CL,W) Camelot Legend
This course will examine the development of Arthurian legend-tales of knights and ladies associated with the court of King Arthur-from its early origins in Celtic and Latin medieval literature, through medieval romances and histories, culminating in Malory's *Morte D'Arthur*.

ENLT 235 3 cr.
(CL,W) Literature in the Age of Chaucer
(Area A) This course will explore 14th-century non-dramatic vernacular literature. In addition to Chaucer, authors studied may include Langland, Kempe, and the Pearl Poet.

ENLT 236 3 cr.
(CL,W) The Romantic Protest
(Area C) A survey of the first half of the British Romantic period. Readings will include Blake, Wordsworth, Coleridge and at least three "minor" writers of this era. Discussions will focus on the Romantic imagination, the role of nature in Romantic mysticism, and Romantic notions concerning heightened sensations and altered realities.

ENLT 237 3 cr.
(CL,W) The Darker Romantics
(Area C) A survey of the second half of the British Romantic period. Readings will include Byron, Percy Shelley, Keats, and at least three "minor" writers of this era. Discussions will focus on the waning of the "Romantic religion" of Blake, Coleridge, and Wordsworth in an increasingly prosperous, skeptical, and secularized era.

ENLT 239 3 cr.
(CL,D,W) Irish Short Story
(Area E) Detailed study of short stories from the pens of such masters as Yeats, Joyce, Frank O'Connor, McGovern, Jordan, Trevor, and Beckett. Serious craftsmen aware of the verbal tradition, shapers of the Literary Revival, these masters of language forge a literature that affirms spiritual values in the midst of material misery.

ENLT 240 3 cr.
British Literature: Medieval and Renaissance
(Area A) A detailed study of representative works and authors from the Anglo-Saxons to the 17th century. Though the emphasis will be on an intensive study of major works in their literary and cultural context, consideration will be given to minor writers as well.

ENLT 241 3 cr.
British Literature: Restoration and 18th Century
(Area B) Study of a select group of English and Anglo-Irish authors whose works were first published between 1660 and 1776. Discussions and assignments will emphasize literary history, critical analysis, and sociopolitical contexts.

ENLT 242 3 cr.
British Literature: Romantic and Victorian
(Area C) A study of the major literary works in 19th-century England: poetry, novels and nonfictional prose. The emphasis is threefold: critical analysis; literary history; social, intellectual and political background.

ENLT 243 3 cr.
American Literature to 1865
(Area D) An in-depth study of a select group of major American authors from the Colonial Period to the Civil War. Included are Bradford, Franklin, Irving, and Poe. Consideration given to the historical and cultural milieu and development of major American themes and attitudes.

ENLT 244 3 cr.
Modern British Literature
(Area E) Selected modern and postmodern English poets, playwrights, and fiction writers: Hopkins, Eliot, Hughes, Auden, Larkin, Spender, Osborne, Stoppard, Pinter, Greene, Waugh, Read, Lodge, Amis, Spark, McEwan and Chatwin.

ENLT 245 3 cr.
American Literature, 1865 to the Present
(Area F) Study of a select group of major American authors from the Civil War to the present. Included are Twain, Crane, Fitzgerald and Vonnegut. The historical and cultural milieu and the development of major American themes and attitudes are reviewed.

ENLT 295 3 cr.
(CL) Shakespeare in Stratford
This course combines a traditional study of six Shakespearean plays on the University campus with a week-long residency at the Shakespeare Centre in Stratford-upon-Avon, England. Students will read and discuss the plays produced during the current Royal Shakespeare Company season and attend performances of those plays.

All 300-level ENLT courses have a prerequisite of ENLT 140 or equivalent; a 200-level ENLT course is strongly recommended.

ENLT 340 3 cr.
Introduction to Late Medieval Drama
(Area A) A survey of 14th- and 15th -century drama, including the Corpus Christi cycle, morality plays such as *Everyman*, *Mankind* and *Castle of Perseverence,* and the saint's play. This course may be counted toward the Theatre major, minor or track.

ENLT 341 3 cr.
(CL,W) Shakespeare: Special Topics
(Theory Intensive) A detailed study of Shakespeare's treatment of either a particular genre (comedy, tragedy, history, romance) or a particular subject that occurs across genres. Special attention will be paid to the meaning of plays in performance. This course may be counted toward the Theatre track or minor.

ENLT 342 3 cr.
Renaissance Poetry and Prose
A survey of lyric and narrative poetry, fictional and non-fictional prose, and drama written in England between the time of Sir Thomas More and John Milton. Readings will include More, Surrey, Lyly, Spenser, Sir Philip and Mary Sidney, Donne, Webster, Jonson, Marvell, and Milton.

ENLT 343 3 cr.
Milton and 17th-century Poetry
Detailed study of the Metaphysical poets, the Cavalier poets, and the poetry of John Milton. This course seeks to provide a bridge between the Elizabethan Age and the Restoration and 18th-century poets.

ENLT 344 3 cr.
Milton's *Paradise Lost*
Intensive study of Milton's masterpiece. In addition to our reading and discussion of the text itself, we will examine its biographical and historical context and explore a variety of critical approaches to the poem.

ENLT 345 3 cr.
(CL,W) Restoration and 18th-century Drama
(Area B, Theory Intensive) A survey of the major formal and thematic developments on the London stage between 1660 and 1776. Discussions will focus on the social, political and institutional changes that re-shaped theatrical productions during this period. This course may be counted toward the Theatre major, minor or track.

ENLT 346 3 cr.
The English Novel: 18th and 19th Centuries
The history of the English novel from its origins in the early 18th century until the end of the 19th century. The course focuses on such major figures as Defoe, Richardson, Fielding, Austen, Dickens and Eliot.

ENLT 347 3 cr.
Victorian Voices
This course will focus on three major Victorian authors: one non-fiction prose writer, one novelist, and one poet. Possible authors include Carlyle, Arnold, Ruskin, Dickens, Eliot, Bronte, Tennyson, Browning,

ENLT 348 3 cr.
(CL,D,W) Colonial and Postcolonial Fiction
Through detailed study of such authors as Achebe, Conrad, Forster, Kincaid, Kipling, Naipaul, Orwell, and Rushdie, this course explores the myths and meanings of 19th- and 20th-century European colonialism in Asia, Africa, and the Americas.

ENLT 350 3 cr.
Major Works: American Romantics
(Area D) Cooper's *The Prairie*, Emerson's *Nature*, Thoreau's *Walden*, Melville's *Moby Dick*, and others. Evaluation of the works in their historical context and the development of the American Romantic movement, 1820-1865.

ENLT 351 3 cr.
Transcendentalists
This course transcends the typical limits of this literary period to Emerson and Thoreau's major works. Thus, Orestes Brownson, Margaret Fuller, Ellery Channing, Theodore Parker are covered.

ENLT 352 3 cr.
(CL,W) The Development of the American Novel
This course will focus on the ways in which the American novel has reflected our changing literary and cultural values from the late 18th to the 20th century. The reading list will include works by Charles Brockden Brown, Nathaniel Hawthorne, Mark Twain, Kate Chopin, John Steinbeck, and Kurt Vonnegut, Jr.

ENLT 353 3 cr.
Major Works: American Realists
(Area F) Twain's *Huckleberry Finn*, Howell's *The Rise of Silas Lapham*, James's *The American*, Crane's *The Red Badge of Courage*, Dreiser's *Sister Carrie* and others. Works are evaluated in their historical milieu and the development of American Realism, 1865-1900.

ENLT 354 3 cr.
Major Works of Twain and James
Works to be studied include Twain's *Huckleberry Finn* and *A Connecticut Yankee in King Arthur's Court*, and James's *Portrait of a Lady* and *The Ambassadors*. These works will be examined both in terms of their historical context and by way of a comparative analysis of the two authors.

ENLT 355 3 cr.
American Drama 1919-1939
(Area F) A review of the first "golden age" of American drama, which includes biting masterpieces such as *The Hairy Ape*, *Awake and Sing*, and comic works such as *You Can't Take It With You* and *The Time of Your Life*. This course may be counted toward the Theatre track or minor.

ENLT 356 3 cr.
Major Works of Hemingway and O'Hara
Works to be studied include Hemingway's *The Sun Also Rises* and *For Whom the Bell Tolls*, and O'Hara's *Appointment in Samarra* and *From the Terrace*. These will be examined in terms of both their historical contexts and their basic themes as part of a comparative analysis of the two authors.

ENLT 360 3 cr.
(D) Jewish Literature
The course provides a broad literary overview of Jewish life from medieval times to the present, examining the poetry, fiction, memoirs, and drama of Jewish writers from a variety of cultures.

ENLT 361 3 cr.
Modern Irish Novel
(Area E) A selective introductory course to Ireland's renowned modern novelists: Francis Smart, John McGahern, William Trevor, Neil Jordan, Brian Moore, Bernard MacLaverty, John Banville and others. These literary artists capture the verve, flavor, and illumination that distinguish today's Irish novels.

ENLT 362 3 cr.
Literature and Philosophy
(Theory Intensive) This course explores the Platonic insight that on the highest level literature and philosophy converge. We begin with a few of Plato's dialogues which develop this idea. Then we examine several "literary" works in English which embody it. Our approach is analytical, inductive and historical.

ENLT 363 3 cr.
Magazine Editing
The process of editing is surveyed. Macro-editing (publishing for a defined audience and delighting, surprising, informing, and challenging it) is emphasized over micro-editing (grammar, punctuation, and so forth). Both are fitted into the larger picture of promotion, fulfillment, circulation, advertising, production, and distribution.

ENLT 364 3 cr.
Modern Novel
The evolution of the novel from modern to postmodern times. Major American and English writers are studied, moving from traditional narrative to self-conscious stylistic devices.

ENLT 365 3 cr.
Comparative Romanticism
Major British and American Romantic writers will be studied in an effort to distinguish the forms Romanticism takes in the two countries and to determine possible relationships. Authors to be examined include Blake, Wordsworth, Coleridge, Shelley, Keats, Hawthorne, Poe, Emerson, and Whitman.

ENLT 366 3 cr.
Dante's *Divine Comedy*
A canto-by-canto study, in translation, of Dante's dream vision of hell, purgatory, and heaven. Consideration will be given to the cultural milieu and to medieval art and thought as these affect the allegorical meaning and structure of the poem.

ENLT 367 3 cr.
Gerard Manley Hopkins, S.J.
Study of the life and works of Gerard Manley Hopkins, S.J., the only priest-poet ever to be honored with a place in Westminster Abbey's Poet's Corner.

ENLT 368 3 cr.
Conrad's Fiction
A reading of major works by Conrad and survey of critical response to this quintessential modern Western writer.

ENLT 382-383 Variable credit
Guided Independent Study
A tutorial program open to third-year students. Content determined by mentor.

ENLT 395 3 cr.
Travel Seminar: Ireland
This is an artistic, cultural, literary tour. Students will study the people and places that contribute to Ireland's distinct place in the world of literary art. (Intersession or Spring Break)

All 400-level ENLT courses have a prerequisite of ENLT 140 or equivalent; a 300-level ENLT course is strongly recommended.

ENLT 443 3 cr.
Chaucer
(Theory Intensive) A study of Chaucer's poetry in the context of medieval culture. Readings and assignments will concentrate on *The Canterbury Tales*, but will also cover the other major poems, such as the *Book of the Duchess* and the *Parliament of Birds*.

ENLT 447 3 cr.
Keats: Death and Love
This course will focus almost exclusively on one writer, John Keats, and explore the dynamic relationship in his poetry between death and love.

ENLT 455 3 cr.
American Realists
(Area F) Study of representative figures in the post–Civil War period, the period of the rise of American realism. Authors treated will be Mark Twain, Henry James, Stephen Crane, and selected modern authors.

ENLT 458 3 cr.
Joyce
This course explores the prose works of James Joyce, a major figure in 20th-century literature. We will read *Dubliners*, *A Portrait of the Artist as a Young Man,* and, with the help of various guides, *Ulysses*. We will work to apprehend in Joyce both the universal and the peculiarly Irish.

ENLT 461 3 cr.
Modern Drama
Some previous study of drama required. A survey of the major trends and authors in 20th-century British and American drama, with some Irish and Continental works included. Readings will include works by Shaw, O'Neill, Miller and Williams. This course may be counted toward the Theatre major, minor, or track.

ENLT 462 3 cr.
Literary Criticism and Theory
(Theory Intensive) This course explores both the derivation and the defining characteristics of a range of contemporary interpretive practices, including those of psychoanalytic, Marxist, feminist, formalist, reader response, structuralist, poststructuralist, and cultural materialist critics.

ENLT 470 3 cr.
Teaching Modern Grammars
This course explores the English language in the context of transformational/generative grammar and in relation to what is expected of middle school and high school English teachers. Techniques for teaching these new grammars and laboratory teaching experience in the first-year writing clinic will be presented.

ENLT 480 Variable Credit
Internship
English majors can receive internship credit for a variety of on-the-job experiences. Approval must be obtained beforehand from chair and dean.

ENLT 482-483 Variable Credit
Guided Independent Study
A tutorial program open to fourth-year students. Content determined by mentor.

ENLT 490-491 3 cr.
(W) Senior Seminar
The topics of these writing-intensive seminars vary from semester to semester. Based largely on student writing, presentations, and discussion, this capstone course is required in the major and culminates in the student's development of a seminar paper. May be repeated for credit. Enrollment limited to 15 students per section.

Theatre

THTR 110 3 cr.
(CL) Introduction to Theatre
An introduction to the theories and practices of the theatre arts. Dramatic structure, dramatic literature, critical writing, acting, directing, design, practical stagecraft, and some theatre history will all be touched on in an effort to introduce students to the fullness and variety of the art of theatre.

THTR 111 3 cr.
(CA) Introduction to Acting
This course introduces the student to the fundamental elements of the actor's craft, including internal and external techniques, character analysis, and vocal/physical warmups. These elements will be used in various in-class exercises and rehearsed performance work. The subject of auditions will also be covered. (First of a three-course sequence.)

THTR 112 4 cr.
Introduction to Technical Theatre
This course introduces the student to the materials, equipment, and techniques used in the construction and finishing of stage sets, including lighting, sound, and special effects. Forty hours of lab work and participation on a crew for a major University Players' production will be required.

THTR 210 3 cr.
Intermediate Acting
(Prerequisite: B- or higher in THTR 111.) This course focuses on further exploration of internal acting techniques. Stanislavski-based and other modern acting systems are explored through exercises, written analysis, and scene/monologue study. There is an emphasis on ensemble acting in the classroom, rehearsal, and production. (Second of a three-course sequence.)

THTR 211 3 cr.
(CL) Theatre History I
A chronological study of western theatre from ancient Greek drama to 17th-century British drama. A selection of plays from representative playwrights will be read and discussed with an emphasis on the social, cultural, and theatrical contexts within which these playwrights lived and worked.

THTR 212 3 cr.
(CL) Theatre History II
A chronological study of Western theatre from the middle 17th century to the present. A selec-

Theatre Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	THTR 110–111	Intro. Theatre–Intro. Acting	3	3
MAJOR	THTR 112	Intro. Tech. Theatre	4	
COGNATE	ENLT 122	Intro. Drama		3
GE SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN	QUAN ELECT	Quantitative Reasoning Elective		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			17	16
Second Year				
MAJOR	THTR 211–212	Theatre History I–II	3	3
MAJOR	THTR 213	Design for the Theatre		3
MAJOR	THTR 280	Production Laboratory	1	
COGNATE	ELECT[2]	Elective–Dramatic Literature	3	
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE PHED	PHED ELECT	Physical Education	1	1
			17	16
Third Year				
MAJOR	THTR 311	Directing I		3
MAJOR	THTR ELECT[1]	Electives	3	3
MAJOR	THTR 280	Production Laboratory	1	1
COGNATE	ELECT[2]	Elective	6	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE ELECT	ELECT	Free Electives	3	3
			16	16
Fourth Year				
MAJOR	THTR ELECT	Electives	3	3
MAJOR	THTR 280	Production Laboratory	1	1
COGNATE	ELECT	Cognate Electives	3	6
GE ELECT	ELECT	Free Electives	6	6
GE HUMN	HUMN ELECT	Humanities Elective	3	
			16	16

TOTAL: 130 CREDITS

[1] *Major electives: the Theatre major must select four electives from the following: any THTR course at the 200 level or higher; WRTG 215, WRTG 315, and ENLT courses 200 level or higher that qualify as dramatic literature courses.*

[2] *Cognate electives must include two courses in dramatic literature; one of these must be ENLT 122.*

tion of plays from representative playwrights will be read and discussed, with an emphasis on the social, cultural, and theatrical contexts within which these playwrights lived and worked.

THTR 213 — 3 cr.
(CA) Design for the Theatre

(Prerequisite: THTR 112 with a grade of B- or higher) An introduction to the various design and production elements in theatre. Scenery, lighting, costumes, projections, props and sound will be explored. Students participate in the design elements of the University productions.

THTR 214 — 3 cr.
Drama Practicum

(Prerequisite: any other course that may be counted in the Theatre minor) Work on one of the major aspects of producing a play: acting, costuming, set construction, lighting, publicity, and box-office management.

THTR 280 — 1 cr.
Production Laboratory

Theatre majors working on University Players productions can receive credit for serving as props master, master electrician, sound designer, assistant technical director, assistant stage manager, or running crew. Forty hours of production

work and strict adherence to deadlines required. May be taken for credit up to five times.

THTR 310 3 cr.
Theories of Theatre
Students will study the theories of theatre advanced in the writing of Diderot, Archer, Stanislavsky, Vakhtangov, Brecht, Copeau, Artaud, Grotowski, Brook, and Schechner.

THTR 311 3 cr.
Directing I
(Prerequisites: B- or higher in THTR 111 or permission of instructor.) An introduction to a range of skills and techniques used by stage directors as they transform scripts into successful performances. Several plays will be read and analyzed. Students will direct a short scene or play for performance.

THTR 313 3 cr.
Set Design for the Theatre
(Prerequisite: THTR 213 with a grade of B- or higher) An exploration of the basic crafts of the theatrical set designer. Concentration on developing one's personal vision and interpretive skills through script analysis. Practice in sketching, drafting, painting, collage, model making and typical stage construction. Introduction to environmental theatre.

THTR 370 3 cr.
Technical Theatre: Special Topics
Topic and prerequisites will be announced prior to preregistration.

THTR 371 3 cr.
Theatre Design: Special Topics
Topic and prerequisites will be announced prior to preregistration.

THTR 372 3 cr.
Dramatic Literature: Special Topics
Topic and prerequisites will be announced prior to preregistration.

THTR 373 3 cr.
Acting: Special Topics
(Prerequisite: THTR 111) Topic and prerequisites will be announced prior to preregistration. Past topics include Actor's movement, voice and speech, stage combat.

THTR 380 2 cr.
Advanced Production Lab
(Prerequisites: 2 cr. of THTR 280, permission of the instructor.) Advanced Theatre majors who work on University Players productions can receive credit for stage management, technical or design work, acting or directing. 80 hours of production work and strict adherence to deadlines required. May be taken for credit only once.

THTR 382-383, 482-483 3 cr.
Independent Study in Theatre
A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

THTR 410 3 cr.
Advanced Acting
(Prerequisite: B- or higher in THTR 210.) This course focuses on external techniques, especially the use of the actor's body to create physical characterizations. This work builds on the student's knowledge and experience through the use of exercises, written analysis, and scene /monologue study. (Third of a three-course sequence.)

THTR 411 3 cr.
Directing II
(Prerequisites: B- or higher in THTR 311 or permission of instructor.) Advanced study of rehearsal techniques, directing methods and styles, and effective director-actor relationships. Students will direct a 20-30 minute one act or excerpt for the Director's Workshop as part of the University Players season.

THTR 480 Variable Credit
Internship
Theatre majors or minors can receive credit for a variety of on-the-job work experience. Approval must be obtained beforehand from the supervising faculty member, chair, and dean.

Writing

WRTG 105 3 cr.
College Writing I
(Placement into 105 required) The first of a two-course sequence that fulfills the University's Written Communication requirement, this course concentrates on defining and focusing problems, creating arguments, and providing evidence in academic essays. This course cannot be counted toward the Writing Track or the Writing Minor.

WRTG 106 3 cr.
(D) College Writing II
(Prerequisite: WRTG 105) The second of a two-course sequence that fulfills the university's Written Communication requirement, this course combines study of the elements of style and grammar with instruction in structuring and providing support for argumentative essays. This course cannot be counted toward the Writing Track or the Writing Minor.

WRTG 107 3 cr.
Composition
A study of expository and argumentative prose, and the strategies and techniques used by successful academic writers. This course fulfills the university's Written Communication requirement. It cannot be counted toward the Writing Track or the Writing Minor.

Note: Students must complete the University's Written Communication requirement before they can register for any WRTG course at the 200, 300, or 400 level.

WRTG 210 3 cr.
Advanced Composition
The purpose of this course is to review, practice and apply the principles of a rhetoric of order, stressing invention, disposition, style, tone and theme.

WRTG 211 3 cr.
Technical and Business Writing
A course in scientific or technical writing designed to help students improve their writing skills in preparation for their professions. Specialized training is offered in writing of proposals, reports, instructions, letters, abstracts, resumes, etc.

WRTG 212 3 cr.
Writing for the Law
This course aims to help the student develop the writing skills that will be of particular value to prospective lawyers. Readings, exercises, and assignments stress precision and conciseness as well as careful argument. The course should also be valuable to any student who wants to improve his/her analytical ability.

WRTG 213 3 cr.
Fiction Writing I
Designed to increase students' skills in writing short fiction, this course augments frequent practice in the genre with attention both to theories of short-story composition and to diverse examples. In a workshop atmosphere, students will read and discuss one another's work as well as fiction by well-known authors. Photocopying fee.

WRTG 214 3 cr.
Nonfiction Writing I
Designed to develop skills in writing creative nonfiction prose, this course employs a workshop format and requires intensive reading and analysis of student work as well as work by noted practitioners such as Orwell, Baldwin, Didion, and Dillard. Photocopying fee.

WRTG 215 3 cr.
Play Writing I
This course is designed to teach students the basic elements and techniques involved in writing for theatrical performance. Students will write either a one-act play or one act of a two- or three-act play. This course may be counted toward the Theatre Major, Minor, or Track. Photocopying fee.

WRTG 216 3 cr.
Poetry Writing I
Theory and practice of writing poems. Opportunity for sustained, serious responses to student work and practical advice on publishing, graduate programs, etc. The course employs a workshop format and expects students to possess facility with language and a love of reading and writing. Photocopying fee.

WRTG 218 3 cr.
Writing the Web
Students will analyze both the visual and textual contents of e-mail, news groups, chat groups, MUs, and Web sites, and will be expected to produce a portfolio or Web site that demonstrates their ability to work in this new medium. Discussion topics include ethical issues unique to the Internet writing environment.

WRTG 310 3 cr.
Strategies for Teaching Writing
This course for English/Education majors emphasizes strategies for taking students into, through, and beyond the writing process. Students have many opportunities to plan and to design writing assignments, to conduct writing sessions, and to evaluate written composition.

WRTG 313 3 cr.
Fiction Writing II
(Prerequisite: WRTG 213) The advanced workshop augments intensive student writing assignments with theoretical discussions and diverse examples of good fiction by established writers. Photocopying fee.

WRTG 314 3 cr.
Nonfiction Writing II
(Prerequisite: WRTG 214) The advanced workshop augments intensive student writing assignments with discussion and analysis of creative nonfiction by various hands. Photocopying fee.

WRTG 315 3 cr.
Play Writing II
(Prerequisite: WRTG 215) This advanced workshop builds on the skills acquired in Play Writing I, and includes intensive reading and writing

assignments that encourage students to explore theatrical styles beyond realism. This course may be counted toward the Theatre major, minor or track. Photocopying fee.

WRTG 316 3 cr.
Poetry Writing II
(Prerequisite: WRTG 216) Advanced workshop on practice and theory of writing poetry. The course encourages extensive reading and intensive writing. Photocopying fee.

WRTG 382-383, 482-483 Variable Credit
Guided Independent Study
A tutorial program open to junior and senior students who have completed appropriate lower-division coursework. Context determined by genre and mentor.

WRTG 480 Variable Credit
Internship
English majors and/or Writing minors can receive internship credits for a variety of on-the-job experiences. Approval must be obtained beforehand from the supervising faculty member, chair and dean.

ENVIRONMENTAL SCIENCE

Faculty

Michael C. Cann, Ph.D., *Co-Director, Chemistry Department;* Michael D. Carey, Ph.D., *Co-Director, Biology Department*

See Biology and Chemistry for faculty listings.

Overview

The Environmental Science major is an interdisciplinary program of the Biology and Chemistry Departments at The University of Scranton. The Environmental Science major has the following objectives:

1. To prepare students for entry-level positions (in the public or private sector) in the broad field of environmental analysis, compliance, and technology;
2. To prepare students for advanced study in environmental science;
3. To provide a sufficiently comprehensive science and liberal arts background to allow students to pursue advanced training or work in other fields that deal with environmental issues, e.g., environmental law, environmental health, and environmental regulation in business and industry.

The Environmental Science program provides a rigorous and comprehensive grounding in the biological, chemical, and physical aspects of the natural environment, and in the analytical and instrumental techniques used to investigate environmental problems. Upper-class students may choose to focus more closely on either the chemical or biological aspects of environmental science, and must complete either an undergraduate research project or an internship in environmental science. The program also is designed to expose students to the social, political, regulatory, economic, and ethical concerns that are commensurate with defining and addressing environmental issues in today's world.

Environmental Science Curriculum

I. Required courses in the major and cognate include courses in Biology, Chemistry, Environmental Science, Natural Science, Mathematics, and Physics.

II. The student must complete four courses from among the following electives within the major; at least one course must be chosen from each group:

Group A

CHEM 342	Env. Toxicology	3 cr.
CHEM 344	Env. Geochemistry	3 cr.
CHEM 350	General Biochemistry I	3 cr.
CHEM 352	Chemical Toxicology	3 cr.

Group B

BIOL 195	Tropical Biology	3 cr.
BIOL 250	Microbiology	5 cr.
BIOL 272	Invertebrate Biology	5 cr.
BIOL 273	Marine Ecology	3 cr.
BIOL 349	Plant Physiology	5 cr.
BIOL 370	Animal Behavior	4.5 cr.
BIOL 375	Evolution	3 cr.
BIOL 471	Applied Ecology	3 cr.
BIOL 472	Systems Ecology	3 cr.
BIOL 473	Estuarine Ecology	5 cr.

III. In fulfilling GE requirements, students are *strongly* encouraged to enroll in:

PHIL 213	Environmental Ethics	3 cr.
PS 230	Environmental Policy	3 cr.
ECO 103	Econ. of Env. Issues	3 cr.

Environmental Science Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	CHEM 112–113	Gen. Analytical Chem I–II	4.5	4.5
MAJOR	BIOL 141–142	General Biology I–II	4.5	4.5
MAJOR	NSCI 201	Science and Human Environment		3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Phys. Ed.	1	1
			16	16
Second Year				
MAJOR	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
MAJOR	BIOL 371	Ecology	5	
MAJOR	BIOL 379	Biostatistics		3
COGNATE (GE QUAN)	MATH 103–114[1]	Pre-Calculus–Analysis I	3-4	4
GE HUMN	HUMN ELECT	Humanities Elective		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16.5-17.5	18.5
Third Year				
MAJOR	CHEM 340	Environmental Chemistry	3	
MAJOR	CHEM 370	Instrumental Analysis		5
MAJOR	MAJOR ELECT	Elective		3-5
GE S/BH	POL SCI 230	Environmental Policy	3	
GE S/BH	ECO 103	Economics of Envir. Issues		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	PHYS 120–121[2]	General Physics	4	4
			16	18-20
Fourth Year				
MAJOR	MAJOR ELECT	Elective	3-5	3
MAJOR	MAJOR ELECT	Elective	3-5	
MAJOR	ESCI 480 or 493	Research or Intern. in Env. Sci.	1.5	
MAJOR	ESCI 481 or 494	Research or Intern. in Env. Sci.		1.5
MAJOR	ESCI 440–441	Topics in Environmental Sci.	1	1
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN	Humanities Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE ELECT	ELECT	Free Electives		6
			14.5-18.5	17.5

TOTAL: 130-137 CREDITS

[1] *Students entering exempt from MATH 103 may select CMPS: Computer Science I or MATH 221: Analysis II.*

[2] *Or Elements of Physics I and II (PHYS 141-141)*

Course Descriptions

Most of the required and recommended courses in the Environmental Science major reside in other departments, and their descriptions can be found under the appropriate departmental listing.

ESCI 440-441 — 2 cr.

Topics in Environmental Science

(Prerequisite: Senior Standing in ESCI major or permission of instructor) One credit/semester. Discussions of current and significant environmental science issues.

ESCI 480-481 — 3 cr.

Internship in Environmental Science

(Prerequisite: Senior Standing in ESCI major or permission of instructor) 1.5 credits/semester. Student to work with private firm, advocacy group, or governmental agency on an environmental issue or technique that involves application of scientific principles to monitor, test, or develop/implement solutions to environmental problems. Project and institutional sponsor subject to approval of the Environmental Science Committee; final project report required.

ESCI 493-494 3 cr.
Research in Environmental Science
(Prerequisite: senior status in ESCI major or permission of instructor) 1.5 credits/semester. Individual study and research of a specific environmental problem. Mentored by a Biology or Chemistry faculty member.

FOREIGN LANGUAGES AND LITERATURES

Faculty

Linda Ledford-Miller, Ph.D., *Chair*
Joyce M. Hanks, Ph.D.
Thomas A. Kamla, Ph.D.
Robert A. Parsons, Ph.D.
Njegos M. Petrovic, Ph.D.
Virginia A. Picchietti, Ph.D.
Joseph P. Wilson, Ph.D.
Habib K. Zanzana, Ph.D.

Overview

The program of the Foreign Language Department is designed to enable students to read, write, speak and comprehend one or more foreign languages; to think and express themselves logically, precisely and critically in one or more foreign languages; to acquire skills in literary criticism by reading representative foreign authors; to gain insight into the evolution of the culture and civilization of foreign peoples as reflected in their literature.

The Bachelor of Arts program in Classical Languages gives students a solid foundation in Latin and Greek to engender an appreciation of the liberal aspects of Classical Studies. Classics majors are encouraged to take their junior year abroad at Loyola University's Rome Center of Liberal Arts with which The University of Scranton is affiliated.

Foreign Language majors and students pursuing teaching certification must complete 36 credits in one language beginning with the intermediate level if it is modern, and the elementary level if it is classical. Modern Language majors normally take at least 12 credits in a second language, either modern or classical, as their cognate. A double major may be pursued by taking 36 credits in one language, beginning with the intermediate or elementary level, and by satisfying the major and cognate requirements of another department. The placement of students at a particular foreign-language level is the responsibility of the department.

The department urges students to study abroad during their junior year. In addition, it strongly recommends that students who spend the entire junior year abroad plan their studies carefully, so that they will be able to take at least one course per semester in their major language during the senior year.

Minors in Language

French, German, Spanish: 18 credits at the intermediate level or higher.

Greek, Italian, Latin: 18 credits at the elementary level or higher.

Portuguese: 15 credits consisting of PORT 110, PORT 210, and two advanced Portuguese courses.

Minors in **Japanese** and **Russian** are sometimes possible, depending upon the availability of courses in these languages. They consist of 18 credits at the elementary level or higher.

Students who minor in **two languages** must complete 12 credits in each language beginning at the intermediate level or higher.

Elementary courses in any language are not open to students who have studied two or more years of the same language in high school. Exceptions to this policy must be approved by the Department of Foreign Languages and Literatures.

Major in International Language-Business

The major in International Language-Business is a professionally oriented program. Its purpose is to make language study a more career-structured discipline by providing students with the opportunity to acquire a liberal education while, at the same time, taking courses specifically relevant to a business enterprise.

In order to bridge the communication gap between multinational businesses and the lack of functional language skills often exhibited by the personnel representing them, specialized language courses focusing on the business terminology and cultural setting of the countries in question complement the regular language and business courses in this major.

The department urges students to study abroad during their junior year. In addition, it strongly recommends that students who spend

the entire junior year abroad plan their studies carefully, so that they will be able to take at least one course per semester in their major language during the senior year. Students who pursue a business internship will earn credits in addition to the 130 credits stipulated for the program, unless there is room in the free area.

Course Descriptions – Modern Languages

French

FREN 101-102 6 cr.
(CF) Elementary French*
Designed to impart a good basic foundation in comprehending, speaking, reading, and writing the French language. Designed primarily for students with little or no background in the French language.

FREN 203 3 cr.
French Cultural Heritage
This course aims to develop understanding of the culture, literature and civilization of France. Representative readings from different periods. Lectures, discussions and readings in English.

FREN 211-212 6 cr.
(CF,D) Intermediate French*
(Prerequisites: FREN 101-102 or equivalent, as determined by placement exam) Designed to give greater scope and depth to the student's knowledge of the grammar and style of the French language. Taught in French. Completion of the second half of the intermediate sequence satisfies one semester of the cultural diversity requirements (D).

FREN 239 3 cr.
(CL,D) French Christian Thinkers
(Prerequisite: An Introduction to Literature course in the English or Foreign Language departments) Readings and analysis of writings by French Christians from the Middle Ages through the 20th century. Taught in English, but credit in French available for students able to read and write in French, who meet one additional class period per week with instructor.

FREN 311 3 cr.
(CF,D) French Conversation*
(Prerequisites: FREN 211-212 or equivalent, as determined by placement exam) Intensive French conversation, emphasizing cross-cultural comparisons and development of self-expression in French. Taught in French.

FREN 312 3 cr.
(CF,W) French Composition*
(Prerequisites: FREN 211-212 or equivalent, as determined by placement exam) An intensive course in writing in French, stressing grammar, writing analysis and composition. Taught in French.

FREN 313-314 6 cr.
(CL,D) Survey of French Literature
(Prerequisites: FREN 311-312 or equivalent) A review of French literature from the chanson de geste to the contemporary period.

FREN 315-316 6 cr.
(D) Survey of French Culture and Civilization*
(Prerequisites: FREN 311-312, or equivalent) A review of the geography, history, art and other accomplishments that comprise the heritage of the French-speaking people worldwide, from antiquity to the present.

FREN 319 3 cr.
Business French*
(Prerequisites: FREN 311-312 or equivalent) Overview of the spoken and written language of the French business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance and international commerce within a contemporary cultural setting.

FREN 320 3 cr.
(CL) Introduction to French Literature
(Prerequisites: FREN 311-312 or equivalent) An introduction to the principal literary genres of poetry, novel, short story, essay and drama, through analysis of representative works in the French tradition. Strongly recommended as a prerequisite for all upper-division literature courses in French.

FREN 321-322 6 cr.
(D,W) Advanced French Stylistics*
(Prerequisites: FREN 311-312 or equivalent) Designed to strengthen the speaking and writing skills. Advanced use of grammar and syntax.

FREN 421 3 cr.
Medieval and Renaissance French Studies
(Prerequisites: FREN 311-312 or equivalent) Selected literary works from the 11th century to the late Renaissance.

** Meets three hours per week in class; includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

Foreign Language Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE HUMN)	LANG[1] 211–212 or 311–312	Intermediate or Conversation/Composition	3	3
COGNATE	LANG 101–102 or 211–212	Second Modern or Classical Language	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE QUAN	MATH 106 or 107	Quantitative Methods I or II		3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16	16
Second Year				
MAJOR	LANG 311–312[1]	Adv. Conversation/ Comp	3	3
COGNATE	LANG 211–212 or 311–312	Second Modern or Classical Language	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE PHIL–T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	LANG ELECT[2]	Advanced Lang. Electives	6	6
COGNATE	LANG–ELECT	Language Elective–Elective	3	6
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
			18	18
Fourth Year				
MAJOR	LANG ELECT	Advanced Lang. Electives	6	6
COGNATE	ELECT	Cognate Electives	3	3
GE ELECT	ELECT	Free Electives	6	6
			15	15

TOTAL: 130 CREDITS

[1] *Students who begin language at the Advanced (311) level will take 6 fewer credits in the major and 6 more credits in the cognate or free elective area in either the junior or senior year. In their second year, they will choose advanced language electives.*

[2] *Spanish majors will take SPAN 320-321 and three of the following four courses: SPAN 313, 314, 330, 331.*

FREN 423 3 cr.
Seventeenth-Century French Studies
(Prerequisites: FREN 311-312 or equivalent)
Literary, philosophical, and social expression from 1610 to 1715.

FREN 425 3 cr.
Eighteenth-Century French Studies
(Prerequisites: FREN 311-312 or equivalent)
The Enlightenment from 1715 to 1789.

FREN 427 3 cr.
Nineteenth-Century French Novel
(Prerequisites: FREN 311-312 or equivalent)
The development of prose narration as reflected in the literary movements of the age.

FREN 429 3 cr.
Nineteenth-Century French Poetry
(Prerequisites: FREN 311-312 or equivalent)
The development of poetic forms from the romantic to the symbolist movement inclusively.

FREN 430 3 cr.
French Women Writers
(Prerequisites: FREN 311-312 or equivalent)
Women's view of themselves and the world as reflected in their literary creations. Cross-listed with Women's Studies Concentration. (See Women's Studies Concentration section.)

FREN 431 3 cr.
(D,W) Twentieth-Century French Novel
(Prerequisites: FREN 311-312 or equivalent)
The development of prose narration from the Dreyfus case to the present.

FREN 432 3 cr.
French Short Story
(Prerequisites: FREN 311-312 or equivalent)
Principal practitioners of the short story in French, including contemporary authors.

International Language-Business Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE HUMN)	LANG[1] 211–212 or 311–312	Inter. or Conversation/Composition	3	3
COGNATE	LANG 101–102 or 211–212	Second Language	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN ELECT	MATH 106 or 107	Quantitative Methods I or II		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology 1	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16	16
Second Year				
MAJOR	LANG 311–312[1]	Conversation/Composition	3	3
MAJOR	ACC 253	Financial Accounting	3	
COGNATE	LANG 211–212 or 311–312	Second Modern or Classical Lang.	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE S/BH	S/BH ELECT	Eco 153–154	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	LANG 321–322[2]	Advanced Stylistics	3	3
MAJOR	LANG ELECT	Advanced Language Electives	3	3
MAJOR	MGT 351	Principles of Management I		3
MAJOR	ECO/IB 351	Environment of Internt'l Bus.		3
MAJOR	FIN 351	Intro. to Finance	3	
GE ELECT	ELECT[3]	Elective	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT[4]	Philosophy or T/RS Elective	3	
			18	18
Fourth Year				
MAJOR	LANG 319	Business Language		3
MAJOR	LANG ELECT	Advanced Language Electives	6	3
MAJOR	MKT 351	Intro. to Marketing	3	
MAJOR	INT ELECT	One of MGT 475, MKT 475, ECO 375, FIN 475, IB 476, IB 477	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT[3]	Electives	3	6
			15	15

TOTAL: 130 CREDITS

[1] *Students who begin their major language level at the 311 level take 6 fewer credits in the major and 6 more credits in the cognate or free area. In their second year, they will choose advanced language electives.*

[2] *Students whose first language is Spanish will take SPAN 320-321, and three of the following four courses: SPAN 313, 314, 330 and 331 in their advanced language electives area.*

[3] *PS 212, PS 240 and ACC 254 are recommended GE electives.*

[4] *A course focusing on the ethics of business is recommended.*

FREN 433 3 cr.
Twentieth-Century French Drama
(Prerequisites: FREN 311-312 or equivalent) The development of dramatic forms from the Théâtre Libre to the present.

FREN 434 3 cr.
French Novel into Film
(Prerequisites: FREN 311-312 or equivalent) Examination of the transformations effected in major French novels adapted for the screen, and exploration of alternative solutions to the problems posed.

FREN 435 3 cr.
The French Theater
(Prerequisites: FREN 311-312 or equivalent) An inquiry into the various forms of the French theater through a study of significant representative works from different periods.

FREN 437 3 cr.
Francophone African Literature
A study of Francophone African Literature from the Maghreb to the African diaspora, with emphasis on main literary currents, ideology, political climates, linguistic traditions, and literary manifestations in each country.

FREN 439 3 cr.
The Craft of Translation
A study of the techniques of translation with emphasis on accurate terminology and proper syntax when translating newspaper articles, legal documents, medical records, business records and correspondence, essays, poems, songs, and short fiction.

FREN 482-483 3 cr.
Guided Independent Study
(Prerequisites: FREN 311-312 or equivalent; junior or senior standing) Tutorial content determined by mentor.

German

GERM 101-102 6 cr.
(CF) Elementary German*
A complete course in the fundamentals of the German language. Emphasis on reading of graded texts, with written, oral and aural exercises. Designed for students with little or no background in the German language.

GERM 211-212 6 cr.
(CF,D) Intermediate German*
(Prerequisites: GERM 101-102 or equivalent) Reading from modern authors of moderate difficulty. Oral and written exercise. Systematic review of German grammar.

GERM 213-214 6 cr.
Introduction to Business German*
(Prerequisites: GERM 101-102 or equivalent) Specialized intermediate-level course for students who wish to focus their skills on the language of the business world. Oral and written exercises. Systematic review of German grammar.

GERM 295 3 cr.
(D) German Culture and Language
Intersession course to German, Austria and Switzerland. Credits may be used in Free Area and Cultural Diversity but not for German major or minor. Comparison of German and American cultures. Study of history, music, political science, language and modern attitudes. Team-taught by University faculty from several academic departments.

GERM 311-312 6 cr.
(CF,W) Advanced German Composition and Conversation*
(Prerequisites: GERM 211-212 or equivalent) Selected texts in prose and poetry. Advanced practice in conversation and composition. Survey of German grammar.

GERM 313-314 6 cr.
(CL,D) Survey of German Literature and Culture
(Prerequisites: GERM 311-312 or equivalent) A survey of German literature from the 11th century to the contemporary period, with special emphasis on the main intellectual currents as well as the social and political developments.

GERM 319 3 cr.
Business German*
(Prerequisites: GERM 311-312 or equivalent) Overview of the spoken and written language of the German business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance and international commerce within a contemporary cultural setting.

GERM 321-322 6 cr.
(W) Advanced Stylistics*
(Prerequisites: GERM 311-312 or equivalent) Advanced study of syntax and semantics aimed at the development of stylistic sensitivity. Interdisciplinary textual analyses (business and commercial German, communications media, the sciences and humanities) for further practice in composition and conversation.

GERM 421 3 cr.
German Classicism and Romanticism
(Prerequisites: GERM 311-312 or equivalent) A study of the literature of the 18th (Goethe, Schiller, Holderlin) and early 19th centuries (Kleist, Hoffmann, Novalis) in their Classical and Romantic contexts.

GERM 423 3 cr.
Realism and Naturalism
(Prerequisites: GERM 311-312 or equivalent) A study of the works of late 19th-century authors, such as Storm, Fontane and Keller.

** Meets three hours per week in class; includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

GERM 425 3 cr.
German Literature up to 1945
(Prerequisites: GERM 311-312 or equivalent) An in-depth study of such authors as Brecht, Mann, Kafka and Rilke.

GERM 427 3 cr.
Postwar German Literature
(Prerequisites: GERM 311-312, or equivalent) Concentration on contemporary authors such as Frisch, Durrenmatt, Grass and Boll, as well as representative authors from the former East Germany.

GERM 482-483 Variable Credit
Independent Study
(Prerequisites: GERM 311-312 or equivalent; junior or senior standing) Tutorial content determined by mentor.

Hebrew

HEBR 101-102 6 cr.
(CF) Biblical Hebrew
A systematic introduction to the fundamentals of Biblical Hebrew grammar and to certain aspects of ancient Semitic language and culture.

Italian

(Additional course work is available by arranging independent and/or foreign study)

ITAL 101-102 6 cr.
(CF) Elementary Italian*
Introduction to the Italian language. Designed for beginners.

ITAL 207 3 cr.
(CL,D,W) Italian Women's Writing in Translation
This course addresses women's voices and experiences in 20th-century Italian prose, poetry, theater and film. Not all the artists subscribe to a feminist ideology, but their works share an interest in issues concerning women. Students examine the styles, themes and historical contexts of the primary works. Does not count toward the Italian minor or major.

ITAL 208 3 cr.
(D,W) Envisioning Italy From Novel to Film: The Case of Neorealism
This course addresses the way in which authors and film makers have envisioned Italy in the Neorealist tradition. Students will analyze neorealist novels and their cinematic adaptations to determine similarities and differences in the artists' visions and interpretations of Italian society. This course does not count toward the Italian minor or major.

ITAL 209 3 cr.
Italian Cinema: From Origins to Present
Course examines Italian cinema from the silent era to the present. Focus on the impact of historical events on the film industry and on the transformation in style and content in the reaction to specific moments in Italian history. Films with subtitles. Taught in English. Does not count toward the Italian minor or major.

ITAL 211-212 6 cr.
(CF,D)Intermediate Italian*
(Prerequisites: ITAL 101-102 or equivalent) Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Completion of the second half of the intermediate sequence satisfies one semester of the cultural diversity requirements.

ITAL 295 3 cr.
(D) Italian Culture and Society
An examination of Italian culture and society from the Renaissance to today. The course traces the development of Italian culture and society through primary texts, including essays, plays, short stories, films, opera and contemporary music, and sculpture and painting. The course includes travel to Italy.

ITAL 311-312 6 cr.
(CF,D) Advanced Italian Composition and Conversation*
(Prerequisite: ITAL 211-212 or equivalent) An intensive course in Italian composition and conversation with emphasis on detailed study of advanced grammatical and stylistic usage of the Italian language.

ITAL 313 3 cr.
(CL) Survey of Italian Literature I
(Prerequisite: ITAL 311-312 or equivalent) This course, conducted in Italian, introduces students to 19th-and 20th-century Italian literature and to significant literary movements and figures from these periods.

ITAL 314 3 cr.
(CL) Survey of Italian Literature II
(Prerequisites: ITAL 311-312 or equivalent) This course, conducted in Italian, introduces students to Italian literature from the medieval period to

** Meets three hours per week in class; includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

the 18th century. It focuses on significant literary movements and figures from these periods.

Japanese

(Additional course work is available by arranging independent and/or foreign study)

JAP 101-102 **6 cr.**
(CF) Elementary Japanese*
Development of the fundamental skills, listening, speaking, reading and writing, with emphasis on language performance. Emphasis on practical application of the basic skills for business-related activities. Relevant cultural aspects are introduced. Designed primarily for students with no background in the Japanese language.

JAP 211-212 **3 cr.**
Intermediate Japanese*
(Prerequisites: JAP 101-102 or equivalent) This course continues development of the four major skills: listening, speaking, reading and writing. Upon completion of the course students will understand all the basic concepts of the structure of the language.

Portuguese

(Additional course work is available by arranging independent and/or foreign study)

These courses meet the cognate language requirement and may serve as the basis for a 15-credit minor in Portuguese.

PORT 110 **4.5 cr.**
(CF) Intensive Elementary Portuguese*
A video-based introduction to Brazilian Portuguese, this course covers basic grammar and vocabulary needed for listening, speaking, reading, and writing Portuguese. Students will also develop some cultural understanding of Brazil, Portugal, and other Lusophone countries. Meets 4 days a week. Offered fall only, even years.

PORT 210 **4.5 cr.**
(CF,D) Intensive Intermediate Portuguese*
(Prerequisite: PORT 110 or equivalent) A continuation of elementary Portuguese. Students will refine, through oral and written activities, literary and other readings, and video, the skills learned in PORT 110. Cultural knowledge of the Lusophone world will also be further developed. Meets four days a week. Offered spring only, odd years.

Russian

(Additional course work is available by arranging independent and/or foreign study)

RUSS 101-102 **6 cr.**
(CF) Elementary Russian*
Primary emphasis on developing the skills of understanding, speaking, reading and writing Great Russian. A thorough and continual study of the Cyrillic alphabet is an integral part of the course's content.

RUSS 211-212 **6 cr.**
Intermediate Russian*
(Prerequisites: RUSS 101-102 or equivalent) This course continues development of the four major skills: listening, speaking, reading, and writing. It builds on the grammatical concepts learned in RUSS 101 and 102 and provides a solid foundation for the student interested in visiting Russia and/or in reading the Russian classics, contemporary literature, and newspapers.

Spanish

SPAN 101-102 **6 cr.**
(CF) Elementary Spanish*
Fundamentals of grammar, pronunciation, conversation; suitable readings and written exercises. Designed primarily for students with little or no background in the Spanish language.

SPAN 203 **3 cr.**
(CL,D) Topics in Latin American Cultural Heritage
This course aims to develop understanding of the culture, literature and civilization of Latin America (i.e., Brazil and Spanish America). The topic and the region of Latin America studied may change, and thus this course may be repeated for credit when appropriate. Lectures, discussions and readings in English.

SPAN 211-212 **6 cr.**
(CF,D) Intermediate Spanish*
(Prerequisites: SPAN 101-102 or equivalent, as determined by placement exam) Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Completion of the second half of the intermediate sequence satisfies one semester of the cultural diversity requirements.

** Meets three hours per week in class; includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

SPAN/PS 295 6 cr.
(CF,D,S) Contemporary Mexican Culture and Language*
(Prerequisite: SPAN 211 or higher) A 6-credit intersession travel course to Guadalajara, Mexico; 3 credits in Humanities (foreign-language area), 3 credits in the social sciences (political-science area), and cultural diversity credit. Team taught by University faculty from the departments of Foreign Languages and Political Science with assistance from Mexican faculty at UNIVA.

SPAN 296 3 cr.
(CL,D) Topics in the Culture, Civilization, and Literature of Latin America
Travel course: develops understanding of the culture, literature and civilization of Latin America. Topic and the region of Latin America studies may change, and the course may be repeated for credit when appropriate. Taught in English. Students desiring credit in Spanish must do all readings and writing in Spanish and meet with professor for discussions in Spanish.

SPAN 310 3 cr.
Medical Spanish*
(Prerequisites: SPAN 211-212 or equivalent) Designed for the student who plans to work in any area of health care, this course focuses on the needs and problems of Spanish-speaking patients. Students learn specialized vocabulary and improved communicative ability through conversation and composition and develop an increased awareness of health issues often of particular concern to Hispanics.

SPAN 311 3 cr.
(CF,D) Spanish Conversation*
(Prerequisites: SPAN 211-212 or equivalent, as determined by placement exam) Reading-based conversation stressing development of self-expression in Spanish. Practice in oral composition.

SPAN 312 3 cr.
(CF,W) Spanish Composition*
(Prerequisite: SPAN 212 or equivalent) Intensive writing practice stressing grammar, writing analysis, and composition.

SPAN 313 3 cr.
Spanish Culture and Civilization*
(Prerequisites: SPAN 311-312 or equivalent) An overview of the diverse historical, political, religious and artistic factors that have determined the cultural make-up of the peoples of the Iberian peninsula.

SPAN 314 3 cr.
(D,W) Topics in Latin-American Culture and Civilization*
(Prerequisites: SPAN 311-312 or equivalent) The course examines the diverse cultural, historical, linguistic, religious, and political features of Latin America. Content will vary according to the cultural/geographic region examined, and the course, therefore, may be repeated for credit.

SPAN 319 3 cr.
Business Spanish*
(Prerequisites: SPAN 311-312 or equivalent) Overview of the spoken and written language of the Spanish business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance and international commerce within a contemporary cultural setting.

SPAN 320 3 cr.
(CL) Introduction to Literature
(Prerequisites: SPAN 311-312 or equivalent) An introduction to the principal genres of literature (poetry, short story, essay, drama and novel) through analysis of representative works in the Hispanic tradition. Required prerequisite for all upper-division literature courses.

SPAN 321 3 cr.
(W) Advanced Stylistics*
(Prerequisites: SPAN 311-312 or equivalent) Designed to achieve more sophisticated use of Spanish, both orally and in writing. Includes intensive examination of compositions and translation exercises, as well as discussion of areas of particular difficulty for the non-native speaker (e.g., false cognates and unfamiliar structures).

SPAN 323 3 cr.
Contemporary Issues*
(Prerequisite: SPAN 311-312 or equivalent) A conversation-intensive course. Discussion and reports based on readings in a broad range of current periodicals and focusing on issues of relevance to the Hispanic world and to the particular career or interest areas of students.

SPAN 330 3 cr.
(CL) History of Spanish Literature
(Prerequisite: SPAN 320) Study of Spanish literature from Cantar de Mio Cid to 20th century, with emphasis on main literary currents in each century.

** Meets three hours per week in class; includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

SPAN 331 3 cr.
(CL,D) Survey of Spanish-American Literature
(Prerequisite: SPAN 320) A survey of Spanish-American literature from the 16th century to the present, with representative readings from each of the principal cultural areas.

SPAN 421 3 cr.
Twentieth-Century Spanish Drama
(Prerequisite: SPAN 320) Peninsular drama of the 20th century including dramatic forms after Buero Vallejo and new directions of Spanish theatre in the post-Franco era.

SPAN 422 3 cr.
Spanish-American Drama
(Prerequisite: SPAN 320) Spanish-American drama from the late 19th century to the present, with emphasis on contemporary trends.

SPAN 430 3 cr.
Hispanic Women Writers
(Prerequisite: SPAN 320) This course examines writing by Hispanic women, including prose, poetry, drama and essays, and investigates the social, political, aesthetic, and feminist contexts of their writing. Cross-listed with Women's Studies Concentration. (See Women's Studies Concentration section.)

SPAN 433 3 cr.
Hispanic Lyric Poetry
(Prerequisite: SPAN 320) The development of lyric poetry in the Spanish-speaking world. Examples of early poetry in Spain and Spanish America are studied to establish an awareness of the Hispanic lyric tradition, but the main focus of the course is on 20th-century Spanish America and such figures as Gabriela Mistral, Pablo Neruda, and Cesar Vallejo.

SPAN 439 3 cr.
The Craft of Translation
A study of the techniques of translation with emphasis on accurate terminology and proper syntax when translating newspaper articles, legal documents, medical records, business records and correspondence, essays, poems, songs, and short fiction.

SPAN 482-483 Variable Credit
Guided Independent Study
(Prerequisites: SPAN 311-312 or equivalent) A tutorial program open to Junior and Senior students only. Content determined by mentor.

SPAN 484 3 cr.
Topics in Hispanic Prose
(Prerequisites: SPAN 320) Prose fiction of Spain and/or Spanish America. Topics may focus on an author, a period, a movement, a country or region, or a theme. Content may vary and the course may, therefore, be repeated for credit with consent of Department Chair.

Course Descriptions – Classical Languages

Greek

GRK 111-112 6 cr.
(CF) Elementary Greek
An intensive course in the fundamentals of Classical Greek grammar.

GRK 113-114 6 cr.
New Testament Greek
A systematic introduction to the fundamentals of the grammar of Koine Greek as it is found in the New Testament.

GRK 205 3 cr.
(D) Legacy of Greece and Rome
Survey of the artistic and cultural treasures of classical Greece and Rome with a focus on their enduring legacy in our own civilization.

GRK 207 3 cr.
Roots of Greek in English
The relationship of both Greek and English to the other languages of the Indo-European family; the Greek elements that have come into English are presented: bases, prefixes, numerals, hybrids, etc. A study of the 20-25% English words which come from Greek, particularly in scientific fields.

GRK 211-212 6 cr.
Intermediate Greek
(Prerequisites: GRK 111-112 or equivalent) Review of fundamentals. Readings from Zenophon, Euripides, and the New Testament.

GRK 213 3 cr.
(CL,D,W) Classical Greek Literature and Mythology
This course examines the role that mythology played in Greek literature, and examines the changing attitudes of the Greeks towards the Olympian gods from Homer to the fourth century B.C. All readings and lectures in English.

GRK 220 3 cr.
Ancient Civilization: Greece
The political, constitutional, and cultural history of Greece from the earliest times to the death of Alexander the Great. All readings and lectures in English.

GRK 295 3 cr.
(D) Classic and Contemporary Greek Culture
Travel course (nine days) during the Spring Break. A study of contemporary and classical Greek culture with a focus on the Greek legacy in our own Western civilization. In Greece, students visit Athens, the Acropolis, National Archeological Museum, Corinth, Mycenae, Epidaurus, Olympia, Delphi, and three Greek islands. Additionally, students attend 20 regularly scheduled classes during the semester.

GRK 311-312 3-6 cr.
Readings in Greek Literature
(Prerequisites: GRK 211-212 or equivalent) Selections from Greek writers to suit students' special interests.

GRK 482-483 Variable Credit
Guided Independent Study
(Prerequisites: GRK 211-212 or equivalent; junior or senior standing) Tutorial content determined by mentor.

Latin

LAT 111-112 6 cr.
(CF) Elementary Latin
An intensive course in the fundamentals of Latin reading and composition.

LAT 205 3 cr.
History of Latin Literature
A survey of Roman and post-Roman Latin literature. Taught in English.

LAT 207 3 cr.
Roots of Latin in English
The relationship of both Latin and English to the other languages of the Indo-European family; the Latin elements that have come into English are presented: bases, prefixes, numerals, hybrids, etc. Approximately 60-65% of English words come from Latin.

LAT 211-212 6 cr.
(CF) Intermediate Latin
(Prerequisites: LAT 111-112 or equivalent) Review of fundamentals. Reading of selections from Caesar, Cicero and Virgil.

LAT 213 3 cr.
(CL,D,W) Classical Roman Literature and Mythology
The course examines the role that mythology played in Roman literature, and examines the changing attitudes of the Romans toward the divinities, manifested in literature from Plautus to Apuleius. All readings and lectures in English.

LAT 220 3 cr.
Ancient Civilization: Rome
The political, constitutional, and cultural history of Rome from the earliest times to the end of the Western empire. All readings and lectures in English.

LAT 311-312 3-6 cr.
Readings in Latin Literature
(Prerequisites: LAT 211-212 or equivalent) Selections from Latin writers to suit the students' special interests. Topics will vary from year to year; the course may, therefore, be repeated for credit.

LAT 482-483 Variable Credit
Guided Independent Study
(Prerequisites: LAT 211-212) A tutorial program open to Junior and Senior students only. Content determined by mentor.

Course Descriptions – Literature

LIT 105 3 cr.
(CL,D) Introduction to World Literature in Translation
This course introduces students to significant works in English translation of world literature, while introducing the genres of narrative (fiction and non-fiction), poetry, and drama, and the critical terminology needed to discuss them. Taught in English. Readings may vary.

LIT 205 3 cr.
(CL,D,W) Modern Latin-American Literature in Translation
A survey in English of 20th-century Latin American writers, including Gabriel García Márquez (Colombia), Jorge Luis Borges (Argentina), Rigoberta Menchu (Guatemala), Carlos Fuentes (Mexico), Joaquim Maria Machado de Assis (Brazil) and Isabel Allende (Chile). Introduction to major literary movements, such as the "Boom" and "magical realism," which have influenced writers in the U.S., Europe, and elsewhere.

LIT 206 3 cr.
Travelers and Their Travels
An examination of the history and literature of travel as expressed in a variety of both fictional and non-fictional accounts.

LIT 207 3 cr.
(CL,D,W) Literature of American Minorities
Examination of racial and ethnic groups from the settlement of America until the present. Examination of the historical context and current situation of Native Americans, African-Americans, Hispanic Americans, Asian Americans, women-as-minority, and other marginalized groups. Readings from literature and other disciplines. Cross-listed with Women's Studies Concentration.

LIT 208 3 cr.
(CL,D) French Masterpieces in English Translation
The study of selected major works from the leading French writers of the 19th and 20th centuries who have made an important contribution to the development of Western civilization. Such authors as Stendhal, Flaubert, Gide, Proust, Camus and Malraux will be discussed.

LIT 209 3 cr.
(CL,D) Masterworks of Russian and Slavic Literature
A survey of major literary achievements of Slavic peoples. Dostoyevsky, Tolstoy, Cosic, Sienkiewicz and Solzhenitsyn will be read. No knowledge of Slavic languages is required. All readings and lectures are in English.

LIT 384 3 cr.
(CL,D) Special Topics in American Minority Literature
This course examines a particular minority group in American society through texts written by and about that group. Representative groups include, for example, Native Americans, African Americans, Asian Americans, Hispanic Americans, and Women. This course may be repeated for credit when content varies.

HISTORY

Faculty

Michael D. DeMichele, Ph.D., *Chair*
Raymond W Champagne, Ph.D.
Willis M. Conover, Ed.D.
Roy Palmer Domenico, Ph.D.
Josephine M. Dunn, Ph.D.
Frank X.J. Homer, Ph.D.
Robert Hueston, Ph.D.
Lawrence W. Kennedy, Ph.D.
Lee M. Penyak, Ph.D.
Susan L. Poulson, Ph.D.
Robert W. Shaffern, Ph.D.

Overview

The department aims: (1) to train the student in solid historical methodology; (2) to present history as the study of interdependent human activities and concrete events which have social significance; (3) to engender an intelligent and critically sympathetic understanding of various civilizations and cultures.

Outstanding students are eligible for consideration in the Combined Baccalaureate/Master's Degree program (please refer to the section on The Graduate School and to the *Graduate School Catalog* for specifics of the program). Through careful utilization of intersession and summer sessions, it is possible to complete both the B.A. and M.A. degrees within a four-year period. Contact the chair or the graduate-program director of the department for additional information.

See the Pre-Law section in the catalog for details of the department's success in this area.

Minor in History

A minor in History (18 credits) should include HIST 110-111 or HIST 120-121 or HIST 125-126 plus any four additional history courses.

International Studies

A major in International Studies seeks to provide the student with a full recognition and understanding of the multitudinous forces which shape the contemporary world – nationalism, wars, political and economic ideologies, cultural differentials, and modern technology. Such a broad knowledge and understanding of world affairs can be utilized in careers in teaching, international business,

the legal profession, journalism, the Foreign Service of the United States and other government agencies.

Minor in International Studies

A minor in International Studies (18 credits) should include HIST 110 and 111 or PS 130 and 131 plus four additional courses from the following: PS 212, PS 213, PS 217, PS 218, PS 219, PS 221, PS 222, PS 295, PS 318, PS 319, PS 328, PS 330, PS 331, PS 332, PS 338; HIST 125, HIST 126, HIST 211, HIST 213, HIST 214, HIST 215, HIST 219, HIST 220, HIST 226, HIST 295, HIST 335, HIST 338, HIST 339, and GEOG 217.

Course Descriptions

GEOG 134 3 cr.
(S) World Regional Geography
Introduces the major concepts and skills of geography. A regional approach stresses the five themes of geography including location, place, human environment interaction, movement and region.

GEOG 217 3 cr.
(D,S) Cultural Geography
Study of the influence of geography on the origin, structure, and spread of culture. Focuses on describing and analyzing the ways language, religion, economy, government and other cultural phenomena vary or remain consistent from place to place.

HIST 110-111 6 cr.
(CH) History of the United States
The United States from the time of its European beginnings to the present with special emphasis on the history of Pennsylvania; colonial origins to Reconstruction; Gilded Age to the modern era.

HIST 120-121 6 cr.
(CH) Europe, 1500 to the Present
European history with concentration upon the political aspects of European development. The rise of national monarchies; political, social, economic and intellectual developments; industrialism, the new nationalism and liberalism.

HIST 125 3 cr.
(CH,D) Colonial Latin America
An introduction to colonial Latin American history: Amerindian civilizations; the Spanish and Portuguese colonial period, with emphasis on the themes of conquest, colonialism, race, class and gender.

HIST 126 3 cr.
(CH,D) Modern Latin America
An introduction to modern Latin American history: the Latin American republics, with emphasis on the themes of nation building, dictatorship, cultural identity, revolutionary movements, and inter-American relations.

HIST 140 3 cr.
(W) The Craft of the Historian
Introduction to the craft of the historian including the techniques of historical study, research and writing as well as historiography. Students will be given various exercises dealing with both primary and secondary sources to enable them to think historically through writing exercises based on historical questions.

HIST 210 3 cr.
History as Biography
An exploration of the nature of biography and its relationship to the study of the past. Biographies of several major figures from the modern era will be read and studied to exemplify different biographical techniques and their utility as means of historical inquiry.

HIST 211 3 cr.
The Third World: Empire to Independence
A study of the developing nations with the developed nations in the contemporary world.

HIST 212 3 cr.
(D) Rebels, Rogues, and Reformers
A sociological cross-cultural, and psychohistorical approach to those folk heroes, political "expropriators" and bandits whose spectacular exploits have been romanticized and preserved through the centuries. Figures such as Robin Hood, Cartouche, Pancho Villa, Jesse James, Che Guevara and others will be considered.

HIST 213 3 cr.
(CH,D) Gender and Family in Latin America
(Prerequisite: HIST 125 or 126) Examines the role of gender and family in Latin America from 1521 to present. Themes of gender roles, marriage, family and licit and illicit sexuality will be highlighted. Individual units will examine machismo, marianism, relations of power and women in the workplace. Distinctions will be made according to race and class.

HIST 214 3 cr.
(CH,D) History of Contemporary World Politics
Deals directly with the history of the political, economic, and social issues that are current in

History Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	HIST 110–111	United States History	3	3
MAJOR	HIST 120–121	Europe: 1500 to Present	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN	QUAN ELECT	Quantitative Reasoning		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	HIST 140[2]	Craft of the Historian	3	
MAJOR	HIST ELECT	Electives	3	6
COGNATE	ELECT[1]	Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	HIST ELECT	Electives	6	3
COGNATE	ELECT[1]	Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
			18	18
Fourth Year				
MAJOR	HIST 490 or 491[3]	Seminar Elective	3	3
COGNATE	ELECT[1]	Electives	6	6
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
			15	15

TOTAL: 130 CREDITS

[1] *Students may use cognate electives to develop a second major.*

[2] *Department requires HIST 140: The Craft of the Historian, for history majors; students admitted to four-year B.A./M.A. program are recommended to take HIST 500: Research Methods. No student should take both Research Methods courses.*

[3] *Senior History majors are required to take HIST 490 or HIST 491.*

international affairs including the future possibilities of world order and the crises of foreign-policy making.

HIST 215 3 cr.
(CH,D) Church and Society In Latin America
(Prerequisite: HIST 125 or 126) Examines the historic role of the Catholic Church in Latin America. Major themes include the conversion of New World peoples to Catholicism, syncretism, Church and State, and Liberation Theology. Other units include indigenous religions and beliefs, Protestantism and Judaism in Latin America.

HIST 216 3 cr.
(CH,D) Race in American History
The course studies the role of race in American history from the colonial era to the present, focusing on the experience of African-Americans with consideration given to other racial and ethnic groups. Topics include: slavery; "Jim Crow" laws; the Ku Klux Klan; black migration of the 20th century; African-American community life; and the civil rights struggle.

HIST 217 3 cr.
(CH) History of American Catholicism
A survey of the significant events, trends, and individuals reflecting the Catholic experience in America from the earliest colonial settlements to the post-Vatican II era.

International Studies Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	HIST 110–111	United States History	3	3
COGNATE	PS 130–131	American National Government	3	3
COGNATE	LANG 101–102 or 211–212	Elementary OR Inrermediate	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN	QUAN ELECT	Quantitative-Reasoning Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	HIST 120–121	Europe: 1500 to Present	3	3
MAJOR	PS 212–ELECT	Internat'l Rel.–Elective	3	3
MAJOR	GEOG 134	World Regional Geography		3
COGNATE	LANG	Intermediate or Advanced	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE ELECT	ELECT	Free Elective	3	
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	HIST or PS[1]	Electives	3	3
GE S/BH	ECO 153–154	Prin. of Micro–Macro Econ.	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
			18	18
Fourth Year				
MAJOR	I.S. 390 ELECT	Seminar–Elective	3	3
MAJOR	HIST or PS[1]	Electives	3	3
COGNATE	ELECT	Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Elective		3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
			15	15

TOTAL: 130 CREDITS

[1] *Major electives to be selected from PS 213, 217, 218, 219, 221, 222, 295, 318, 319, 328, 330, 331, 332, 338; HIST 125, 126, 211, 213, 214, 215, 219, 220, 226, 295, 335, 338, 339; GEOG 217, HIST 140 recommended.*

HIST 218 3 cr.
The World at War, 1939-45
Examination of the tactics, strategy, and global significance of World War II. The logistics and scope of the conflict. Importance of propaganda, patriotism and the people. Film-seminar approach. Film fee.

HIST 219 3 cr.
(CH,D) Modern World History
A study of change and development in the world during the 20th century. Emphasis on cultural, economic, and political differences between Western and non-Western states.

HIST 220 3 cr.
(CH) War and Modern Society
(Formerly H/PS 215) Role of military force in international relations; historical background focusing on wars, American and European, of 19th and 20th century; theories of function of war; arms control and deterrence of war.

HIST 221 3 cr.
(CH,D) The American West
A study of acquisition, settlement, and development of the Trans-Mississippi West, including the mining, cattleman's and farmer's frontiers; Indian removal, and Manifest Destiny in Texas and Oregon.

HIST 222 3 cr.
History of American Presidential Elections
A study of the candidates, issues and campaigns in American Presidential elections from Washington to Kennedy. The course will also examine the evolution of the electoral process and the relationship between political parties.

HIST 223 3 cr.
Introduction to Irish History
An introduction to Irish History which surveys the principal political, social, economic and intellectual changes in Irish life since the time of the pre-Celtic peoples. Topics will include: Celtic civilization; the coming of Christianity; the Norman invasion; the English connection; Irish nationalism; and the "troubles" in Northern Ireland.

HIST 224 3 cr.
(CH,D) Ethnic and Racial Minorities in Northeastern Pennsylvania
Film-seminar approach to the study of various ethnic groupings in Northeastern Pennsylvania. Seeks to achieve better understanding of the immigrant's problems and accomplishments through use of documentary and feature films.

HIST 225 3 cr.
Imperial Russia
From the crystallization of political forms in the ninth century through the Kievan State, Mongolian Invasion, rise of Muscovy to the Eurasian Empire from the 17th to the end of the 19th century.

HIST 226 3 cr.
Russian from Revolution to Revolution
An examination of 20th-century Russia and the Soviet Union, beginning with the reign of Tsar Nicholas II and culminating with the breakup of the USSR and its aftermath. Analysis of the prerevolutionary Russia, the Bolshevik Revolution, Lenin and Stalin, World War II, the Cold War, the fall of communism and Russia's place in world affairs.

HIST 227 3 cr.
(D) The Civilization of Islam
An introduction to the history of Islamic civilization from the career of the Prophet Muhammed (c. 632 AD) to the eve of European colonization and imperialism.

HIST 228-229 6 cr.
Ancient History
A survey of ancient civilizations of the Near East and Mediterranean worlds. The culture, society and science of Mesopotamia and Persia; Egypt – the Gift of the Nile; the ancient Israelites; heroic, archaic, classical and Hellenistic Greece; republican and imperial Rome; the origins of Christianity.

HIST 230-231 6 cr.
Medieval History
The civilization of medieval Christendom from the fall of the Roman Empire to the beginning of the 14th century; its religious, social, economic, cultural and political aspects; the relationship between church and society, belief and life style, ideal and reality; the interaction between Western Christendom, Byzantium and Islam.

HIST 232 3 cr.
(CH) England, 1485 to 1714
The end of the Wars of the Roses; Tudor Absolutism, Henry VIII and Reformation; Elizabeth I; Renaissance and Elizabethan music and literature; the Stuarts; Colonialism; Commonwealth; Restoration; the Revolution of 1688; Reign of Anne.

HIST 233 3 cr.
(CH) England, 1714 to Present
Parliamentary rule; Cabinet government; political parties; Industrial Revolution; 19th-century reforms; building of a British Empire; World War I; problems of readjustment; World War II; Britain and the world today.

HIST 236 3 cr.
Modern Germany: Unification and Empire
The 1815 Confederation; 1848 and the failure of liberalism; the Age of Bismarck; Wilhelm II and the "New Course"; World War I and the Collapse of the Empire.

HIST 237 3 cr.
Modern Germany: The Twentieth Century
The troubled birth of the Weimar Republic: the Ruhr Crisis; the Stresemann Era; economic collapse and the rise of Nazism; the Third Reich, and World War II; the two Germanies and the "economic miracle."

HIST 238 3 cr.
(CH,D) History of American Women: From Colonization to Mid-Nineteenth Century
A study of American women from the colonial era to the mid-19th century. Changes in the family, the workforce, women's participation in politics and reform movements, and Native-American and African-American women.

HIST 239 3 cr.
(CH,D) History of American Women: From Mid-Nineteenth Century to the Present
A study of American women since the mid-19th century. The effects of industrialization on the family, women's participation in the workforce, the Depression and the family, women and war, the feminist movement, and the conservative response.

HIST 240 3 cr.
(D) Modern Italy
This course will examine major developments in Italian history from the Napoleonic invasion until current crises of the Republic. Important themes for discussion will be the unification movement, the liberal state, Fascism and anti-Fascist resistance, the postwar Republic, cultural and social change, and economic development.

HIST 241 3 cr.
Law in the Western Tradition
A survey of ideas about law in Western civilization from antiquity until the Civil War. Emphasis on the legal systems, such as the Hebrew, the Athenian, the Roman, the German, and the Catholic, that influenced the modern ideas about the law.

HIST 295 3 cr.
(CH) Britain: Past and Present
(Prerequisite: any 100 level History course) Combines with travel experience in Great Britain to introduce the student to the major historical, cultural, political, economic and social events in Britain's past and present.

HIST 296 3 cr.
(D) Italian History and Heritage
Combines with a travel experience to introduce the student to Italy's cultural heritage and the history of the current Italian Republic. Students will visit sites of historic, artistic and religious significance as well as important places of the contemporary Italian republic.

HIST 310 3 cr.
Colonial America, 1607-1763
The European background of the Age of Discovery; the founding of the British-American colonies; their political, economic and cultural development; British colonial policy and administration; the development of an American civilization.

HIST 311 3 cr.
American Revolution, 1763-1789
Background to the War for Independence; British imperial policy; the development of economic and ideological conflicts; the military contest; British ministerial policy and the parliamentary opposition; the Confederation; the formation of the Constitution.

HIST 312 3 cr.
The Early National Period of American History, 1789-1824
Beginning of the New Government; politics and diplomacy in the Federalist Era; Jeffersonian Democracy; the War of 1812; nationalism and sectionalism, Marshall and the rise of the Supreme Court.

HIST 313 3 cr.
The Age of Andrew Jackson, 1824-1850
Politics and society in the Jacksonian Era, slavery and the antislavery crusade, American expansion in the 1840s; the Mexican War; the emergence of the slavery issue.

HIST 314 3 cr.
Civil War and Reconstruction
Crisis Decade, disintegration of national bonds; The War: resources, leadership, strategy, politics, monetary policy, diplomacy; Reconstruction: realistic alternatives, presidential and congressional phases, effects in the North and South.

HIST 315 3 cr.
(W) American Progressivism, War, and Reaction, 1900-1929
(Prerequisites: HIST 110 and 111) American society from the age of Theodore Roosevelt and Woodrow Wilson to the "New Era" of the Roaring Twenties. Topics include Progressive reform movements, World War I and cultural conflict in the 1920s.

HIST 316 3 cr.
(CH) From Depression to Cold War: 1929-1960
A study of American society from the Great Depression to the election of 1960. The course will focus on the New Deal; American entry into World War II; the origins of the Cold War; and America in the age of "consensus."

HIST 317 3 cr.
History of United States Immigration
(Prerequisites: HIST 110-111) A study of immigration to the United States with emphasis on the period from the Revolution to the restrictive legislation of the 20th century. Motives and

characteristics of immigration. Experiences of newcomers.

HIST 318 3 cr.
A History of American Assimilation
(Prerequisites: HIST 110-111) The history of assimilation (or adjustment) of immigrants to American life. Nativism from pre-Civil War days to the 1920s. The "Old Immigration" and the "New Immigration" considered in the social, political, economic, and religious contexts of their eras. Special problems of the second generation from the 1850s to the 1960s.

HIST 319-320 6 cr.
Byzantine Civilization
The Byzantine Empire from its origins in the fourth century to its collapse in the 15th; the political and economic growth of the Empire with emphasis on its art and religion.

HIST 321-322 6 cr.
(CH) American Ideas and Culture
(Prerequisites: HIST 110 for HIST 321, and 111 for HIST 322) History of American art, architecture, literature and thought; Colonial developments; the American enlightenment; the emergence of a national culture; Romanticism, post-Civil War realism in American art and literature; the intellectual response to the industrial order; the American mind in the 1920s; the intellectual and cultural response to the Depression; post-World War II developments.

HIST 323 3 cr.
The Renaissance
A study of culture in Italy from the 14th to the 16th centuries. Humanism, art, historiography and politics will be emphasized.

HIST 324 3 cr.
The Reformation
The history of Europe during the era of religious revivalism (16th century). The course will focus on the magisterial Protestant reformers, the Catholic Counter-Reformation and dynastic politics.

HIST 325 3 cr.
French Revolution to 1815
(Prerequisite: HIST 120) Historical antecedents; the philosophies; republicanism and the fall of the monarchy; Reign of Terror; the Directory; Napoleon; internal achievements; significance of the Spanish and Russian campaigns; and War of Liberation.

HIST 326 3 cr.
Europe in the Age of Absolutism
(Recommended for Background: HIST 120) A study of the major political, social, economic and intellectual movements in Europe from the rise of royal absolutism until the outbreak of the French Revolution.

HIST 327 3 cr.
(CH,D) The African Experience in Latin America 1500-1900
(Prerequisite: HIST 125 or 126) Examines the experiences of Africans in the colonies and former colonies of Latin America and the Caribbean with emphasis on Spanish America and Portuguese Brazil. Units will highlight slavery, the response of slaves to subjugation; the role of free Africans and men and women of color, intermarriage, religion and music.

HIST 330 3 cr.
Europe, 1815-1914
(Prerequisite: HIST 121) A study of 19th-century Europe concentrating on The Congress of Vienna and its aftermath, the Age of Nationalism and Realism, European Dynamism and the non-European world, and the Age of Modernity and Anxiety.

HIST 331 3 cr.
(C) Recent U.S. History: 1960 to the Present
A study of American society since 1960. The course will focus on the New Frontier and Great Society; the Vietnam War; protest movements; Watergate; and the conservative response to these developments.

HIST 332 3 cr.
(W) America in the Gilded Age, 1865-1900
(Prerequisites: HIST 110-111) American society in the age of industrialization and urbanization. Topics include the emergence of big business and labor conflict, immigration and the growth of cities, Populism, imperialism, and the Spanish-American War.

HIST 333-334 6 cr.
Twentieth-Century Europe
World War I; Treaty of Versailles; Russia becomes the USSR; the European struggle for security; Italian Fascism; rise of Nazi Germany; Asia between the two wars; World War II; loss of colonial empires in Africa and Asia; development of the Cold War; Marshall Plan and NATO.

HIST 335 3 cr.
World War II, Cold War and Detente
The diplomacy of World War II; the development of the Cold War between the U.S. and the U.S.S.R. and the adoption of the policy of detente.

HIST 336 3 cr.
History of American Law
(Prerequisites: HIST 110-HIST 111) Traces the history of ideas and concepts utilized by the courts, legislature, organized bar and administrative agencies to solve legal problems: and shows how American legal thought and reasoning developed from Colonial days to the present.

HIST 337 3 cr.
English Constitutional and Legal History
Anglo-Saxon basis; Norman political institutions; Magna Carta; beginnings of common law; jury system; Tudor absolutism; struggle for sovereignty; rise of House of Commons; democratic reforms; extension of administrative law.

HIST 338-339 6 cr.
American Diplomatic History
(Prerequisites: HIST 110-111) A study of American diplomatic history and principles; The Revolution; Early American policies on isolation and expansion; The War of 1812; The Monroe Doctrine; Manifest Destiny; The Civil War; American imperialism and the Spanish-American War; Latin American diplomacy in the 20th century; World War I; attempts to preclude further war; World War II; Cold War; Contemporary problems.

HIST 340 3 cr.
(W) History of Urban America
(Prerequisites: HIST 110-111) The evolution of cities in the United States from the founding of colonial settlements to the end of the 20th century. The nature of cities and urban life, the process and impact of urban growth, and the problems facing contemporary cities will all be considered.

HIST 390 3-6 cr.
History Internship
A practical work experience which exposes the student to the nature of historical investigation, analysis, and/or writing in a museum, historical site, or public agency. Supervision by faculty and agencies.

HIST 490 3 cr.
(W) Seminar in European History
(Restricted to senior History majors and four-year B.A./M.A. History students) An analysis of selected topics in European history from the 15th to the 20th century. Extensive readings. Historical research and writing stressed.

HIST 491 3 cr.
(W) Seminar in American History
(Restricted to senior History majors and four-year B.A./M.A. History students) An analysis of selected topics in U.S. or Latin American history from the Colonial era to the present. Extensive readings. Historical research and writing stressed.

IS 390 3 cr.
(W) Seminar in International Studies
Required for International Studies majors. Other advanced undergraduates may take this course with permission of the professor. This course may be used for either History or Political Science credit.

MATHEMATICS

Faculty

Jakub S. Jasinski, Ph.D., *Chair*
Maureen T. Carroll, Ph.D.
Steven T. Dougherty, Ph.D.
Michael Dutko, Ph.D.
Gary E. Eichelsdorfer
Anthony P. Ferzola, Ph.D.
Bernard Johns, M.A.
John J. Levko, S.J., Ph.D.
Kenneth G. Monks, Ph.D.
Masood Otarod, SCD
Paul Perdew, Ph.D.
Krzysztof Plotka, Ph.D.
Zhongcheng Xiong, Ph.D.

Overview

The Mathematics program balances algebra vs. analysis in its basic courses and pure vs. applied mathematics (including probability and statistics) in its advanced courses. Supporting courses balance traditional physics with contemporary computer science. Graduates have great flexibility: some continue study in mathematics or related fields, some teach, some become actuaries and some work in jobs which vary from programming to management. A student chapter of the Mathematical Association of America encourages early professionalism.

Minor in Mathematics

The Mathematics minor must include MATH 114, 221, 222, and 351 and two additional electives chosen from Mathematics courses numbered over 300 or Phys 350.

Biomathematics

The Biomathematics major leads to employment or graduate study ranging from biostatistics through public health to medicine. The major contains four tracks: Epidemiology, Molecular Biology, Physiology, or Population Biology. Students interested in medical school should alter the standard schedule so that General Biochemistry can be elected in the third year. This may be done by attending summer sessions, by using AP credits, or – when approved by an academic advisor – by shifting General & Analytical Chemistry to the first year and Organic Chemistry to the second year.

Course Descriptions

MATH 005 3 cr.
Algebra
A study of algebra including factoring, exponents, radicals, graphing, and linear and quadratic equations. Enrollment is restricted to Dexter Hanley College students who are limited in algebra skills. Permission of the dean of Dexter Hanley College is required in order to enroll in this course. Credits count only as free elective.

MATH 101 3 cr.
(Q)Mathematics Discovery
Topics exploring various aspects of mathematical reasoning and modeling are selected to bring the excitement of contemporary mathematical thinking to the nonspecialist. Examples of topics covered in the past include fractal geometry, chaos theory, number theory, and non-Euclidean geometry. Not open to students with credit for or enrolled in any mathematics course numbered above 101.

MATH 102 3 cr.
(Q) Fundamentals of Numerical Mathematics
(Prerequisite: Not open to students with credit for, or enrolled in, MATH 103 or any mathematics course numbered above 105) A study of the fundamental elementary concepts underlying numbers and number systems and their applications. Topics covered include logic, sets, functions, the natural numbers, integers, rational numbers, real numbers, estimation, number theory, patterns, counting, and probability, in addition to other topics chosen by the instructor.

MATH 103 4 cr.
(Q) Pre-Calculus Mathematics
An intensified course covering the topics of algebra, trigonometry, and analytic geometry. Not open to students with credit for or enrolled in MATH 109 or any calculus course.

MATH 105 4 cr.
(Q) Fundamentals of Geometric Mathematics
(Prerequisite: Not open to students with credit for, or enrolled in, any other mathematics course numbered above 102) A study of the fundamental concepts underlying geometric mathematics and its applications. Topics include logic, sets, functions and relations, classical geometry, measurement, transformations, statistics, and analytic geometry and its relationship to algebra and functions, in addition to other topics chosen by the instructor.

MATH 106 3 cr.
(Q) Quantitative Methods I
Topics from algebra including exponents, radicals, linear and quadratic equations, graphing, functions (including quadratic, exponential and logarithmic), and linear inequalities. Not open to students with credit for or enrolled in MATH 103 or MATH 109.

MATH 107 3 cr.
(Q) Quantitative Methods II
(Prerequisite: MATH 106 or equivalent) Topics from differential calculus including limits, derivatives, curve sketching, marginal cost functions, and maximum-minimum problems. Integration. Not open to students with credit for or enrolled in MATH 114.

MATH 108 3 cr.
Quantitative Methods III
(Prerequisite: MATH 107 or 114) Topics from integral calculus including the definite and indefinite integral, techniques of integration, and multivariable calculus. Not open to students with credit for or enrolled in MATH 221.

MATH 109 4 cr.
(Q) Quantitative Methods in the Behavioral Sciences
The mathematics necessary for elementary statistics: algebraic rules, logic, equations, functions, and linear regression. Particular attention paid to lines, parabolas, reciprocals, square roots, logarithms, and exponentials. Intended for students

Mathematics Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE QUAN)	MATH 142–114	Discrete Structures–Analysis I	4	4
COGNATE	CMPS 134	Computer Science I	3	
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED	Physical Education		1
			17	17
Second Year				
MAJOR	MATH 221–222	Analysis II–Analysis III	4	4
MAJOR	MATH 351	Linear Algebra		3
COGNATE (GE NSCI)	PHYS 140–141	Elements of Physics I–II	4	4
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
COGNATE	ELECT[2]	Elective	3	
			17	17
Third Year				
MAJOR	MATH 446–ELECT	Real Analysis I–Elective	3	3
MAJOR	MATH 448–ELECT	Modern Algebra I–Elective	3	3
COGNATE	ELECT[2]	Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Free Elective	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Fourth Year				
MAJOR	MATH ELECT[1]	Electives	3	3
MAJOR	MATH ELECT[1]	Electives	3	3
MAJOR	MATH ELECT[1]	Electives	3	
COGNATE	ELECT[2]	Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE ELECT	ELECT	Free Electives	3	3
			15	15

TOTAL: 130 CREDITS

[1] *Electives for Mathematics majors: Major electives are selected from Mathematics courses numbered above MATH 300; also PHYS 350, PHYS 351, CMPS 362 or CMPS 364. A student must select as an elective at least one of MATH 447 or 449, and at least two of MATH 312, 345, 460, 461. Additional courses numbered under MATH 300 may be taken as free electives but not as major electives.*

[2] *Cognate electives must be used to complete a minor, a concentration, a second major, secondary-education certification, or a package of courses pre-approved by the department.*

The results of the placement tests administered during freshman orientation assist students and their advisors in choosing the proper beginning-level mathematics sequence and the proper entry-level within that sequence. If a course is a prerequisite for a second course, directly or indirectly, and a student receives credit for the second course then that student will not be allowed to register for the prerequisite course.

from psychology and related disciplines. Not open to students with credit for or enrolled in MATH 103.

MATH 114 **4 cr.**
(Q) Analysis I
(Prerequisite: MATH 103 or equivalent) The beginning of a 12-credit sequence covering the topics of calculus and analytic geometry. Limits, derivatives, integration. Fundamental Theorem.

MATH 142 **4 cr.**
(Q) Discrete Structures
A study of symbolic logic, sets, combinatorics, mathematical induction, recursion, graph theory, and trees. Intended for Mathematics, Computer Science, and Computer Information Systems majors, but open to other qualified students.

Biomathematics Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	MATH 142–114	Discrete Structures–Analysis I	4	4
MAJOR	BIOL 141–142	General Biology I–II	4.5	4.5
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120	Introduction to Philosophy	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Phys. Ed.	1	.5
			15.5	15
Second Year				
MAJOR	MATH 221–222	Analysis II–III	4	4
MAJOR	BIOL ELECT[1]–BIOL 379[2]	Track Electives–Biostatistics	4.5-5	3
COGNATE	CHEM 112–113	General & Analytical Chemistry	4.5	4.5
GE PHIL-T/RS	T/RS 121–122	Theology I–II	3	3
GE PHIL-T/RS	PHIL 210	Ethics		3
GE PHED	PHED ELECT	Physical Education	1	.5
			17-17.5	18
Third Year				
MAJOR	MATH 312–351	Probability–Linear Algebra	3	3
COGNATE	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
COGNATE	PHYS 140–141	Elements of Physics I–II	4	4
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT	Electives	3	3
GE PHED	PHED ELECTIVES	Physical Education	.5	.5
			18	18
Fourth Year				
MAJOR	BIOL ELECT[1]	Track Elective	3-5	3-5
MAJOR	MATH 341	Differential Equations		3-4
GE HUMN	HUMN ELECT	Humanities Elective	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE ELECT	ELECTIVE	Elective	3	3
			15-17	15-18

TOTAL: 131.5-136.5 CREDITS

[1] *Biology electives must all come from one track. Epidemiology Track: BIOL 260 or 371, BIOL 250, BIOL 344. Molecular Biology Track: BIOL 260, BIOL 361-362. Physiology Track: BIOL 245, two of BIOL 345, 347, 348, 349, 445, or 446. Population Biology Track: three of BIOL 370, 371, 375, or 472.*

[2] *MATH 314 may be substituted for BIOL 379 but only after MATH 312 has been completed.*

MATH 184-284-384-484 1-4 cr.
Special Topics
Topics, prerequisites, and amount of credit will be announced prior to preregistration.

MATH 201 3 cr.
(Q,W) Algebra and Environmental Issues
(Prerequisite: Not open to students with credit for, or enrolled in, MATH 103, 106, 109, or any calculus course) Study of algebra applied to environmental issues such as the concentration of carbon dioxide in the atmosphere. Modeling will include use of algebra to analyze data and predict future situations. Students will use writing as a tool to understand computations and to present and interpret models based on scientific data. Recommended for non-science students, especially those in Environmental Studies.

MATH 204 3 cr.
(Q) Special Topics of Statistics
Study of the computational aspects of statistics; hypothesis testing, goodness of fit; nonparametric tests; linear and quadratic regression, correlation and analysis of variance. Not open to students who have credit for or are enrolled in an equivalent statistics course (e.g., PSYC 210, MATH 312 or MATH 314).

MATH 221 4 cr.
Analysis II
(Prerequisite: MATH 114) Topics include: applications of the definite integral, transcendental functions, methods of integration, improper integral, parametric equations, polar coordinates, and indeterminate forms.

MATH 222 4 cr.
Analysis III
(Prerequisite: MATH 221) Topics include: infinite series, vectors, solid analytic geometry, multivariable calculus, and multiple integration.

MATH 310 4 cr.
Applied Probability and Mathematical Statistics
(Prerequisite: MATH 221) Basic concepts of probability theory, random variables, distribution functions, multivariable distributions, sampling theory, estimation, confidence intervals, hypothesis testing, linear models and analysis of variance.

MATH 312 3 cr.
Probability Theory
(Prerequisite: MATH 221) Basic concepts of probability theory, random variables and their distribution functions; limit theorems and Markov chains.

MATH 314 3 cr.
Statistics
(Prerequisite: MATH 312) Measure of central tendency, measure of dispersion, continuous random variables, expected value, moments, confidence intervals, hypothesis testing, regression, and correlation.

MATH 320 3 cr.
Chaos and Fractals
(Prerequisite: One math course beyond MATH 221 and one CMPS course or equivalent experience) Study of chaotic dynamical systems and fractal geometry. Topics from discrete dynamical systems theory include iteration, orbits, graphical analysis, fixed and periodic points, bifurcations, symbolic dynamics, Sarkovskii's theorem, the Schwarzian derivative, and Newton's method. Topics from fractal geometry include fractal, Hausdorff, and topological dimension, L-systems, Julia and Mandelbrot sets, iterated function systems, the collage theorem, and strange attractors.

MATH 325 3 cr.
(W) History and Philosophy of Mathematics
(Prerequisite: MATH 222 and either MATH 142 or a math course numbered above 300 or instructor's permission) A survey of major developments in mathematics from ancient through modern times. In addition to the mathematics, this course focuses on the context in which these results were discovered as well as the lives of the mathematicians. Topic may include development of numeral systems, Euclidean and non-Euclidean geometry, algebra, calculus, number theory, real analysis, logic and set theory.

MATH 330 3 cr.
Actuarial Mathematics
(Prerequisite: MATH 221) Theory of interest, accumulation and discount, present value, future value, annuities, perpetuities, amortizations, sinking funds, and yield rates.

MATH 341 4 cr.
Differential Equations
(Prerequisite: MATH 222) Treatment of ordinary differential equations with applications. Topics include: first-order equations, first-order systems, linear and non-linear systems, numerical methods, and Laplace transforms. Computer-aided solutions will be used when appropriate.

MATH 345 3 cr.
Geometry
Euclidean, non-Euclidean, and projective geometry. Transformations and invariants.

MATH 346 3 cr.
Number Theory
(Prerequisite: MATH 114) Topics include divisibility, the Euclidean algorithm, linear diophantine equations, prime factorization, linear congruences, some special congruences, Wilson's theorem, theorems of Fermat and Euler, Euler phi function and other multiplicative functions, and the Mobius Inversion Formula.

MATH 351 3 cr.
Linear Algebra
(Prerequisite: MATH 221) Vector spaces, matrices, determinants, linear transformations, eigenvalues, eigenvectors, inner products, and orthogonality.

MATH 360 3 cr.
Coding Theory
(Prerequisite: MATH 351) A study of algebraic coding theory. Topics include: linear codes, encoding and decoding, hamming, perfect, BCH cyclic and MDS codes, and applications to information theory.

MATH 446 3 cr.
Real Analysis I
(Prerequisite: MATH 222) Topics include: the algebra and topology of the real numbers, functions, sequences of numbers, limits, continuity, absolute and uniform continuity, and differentiation.

MATH 447 3 cr.
Real Analysis II
(Prerequisite: MATH 446) Selections from: integration theory, infinite series, sequences and infinite series of functions, and related topics.

MATH 448 3 cr.
Modern Algebra I
(Prerequisite: MATH 351) Fundamental properties of groups, rings, polynomials, and homomorphisms.

MATH 449 3 cr.
Modern Algebra II
(Prerequisite: MATH 448) Further study of algebraic structures.

MATH 460 3 cr.
Topology
(Prerequisite: MATH 446) Topological spaces: connectedness, compactness, separation axioms, and metric spaces.

MATH 461 3 cr.
Complex Variables
(Prerequisite: MATH 222) The theory of complex variables: the calculus of functions of complex variables, transformations, conformal mappings, residues and poles.

MATH 462 3 cr.
Vector Calculus
(Prerequisites: MATH 222, MATH 351) The calculus of scalar and vector fields and of functions defined on paths or surfaces. Implicit Function, Green's, Strokes, and Gauss' Theorems. Applications.

MATH 493-494 6 cr.
Undergraduate Mathematics Research
An introduction to mathematical research. Students will be required to investigate, present and write up the result of an undergraduate-level mathematical research project. Students will gain experience in researching the mathematical literature, investigating a mathematical problem, and learning how to write a mathematical paper. Students will be required to present their results in both oral and written form.

INTD 224 3 cr.
(Q,W) Science, Decision Making and Uncertainty
See description under Interdisciplinary Courses, page 72.

MEDIA AND INFORMATION TECHNOLOGY

Matthew M. Reavy, Ph.D., *Director*
See Communication for faculty listing.

Overview

Electronic communication has significantly changed the world in many ways. Virtually all aspects of communication within and between institutions and corporations are affected by the need to provide information in multiple media. As the fields of computers and communication have come together, they have created the need for a new type of educational preparation. No longer do we look only to print documents and to oral presentations as the way to convey information. Rather, there is a great need for people who are knowledgeable in both the technical aspects and the communication aspects of this new paradigm.

Our program builds on the strengths of several departments at the University to produce a program that has strength in all its parts. Starting with Physics/Electrical Engineering to provide a careful look at the science of communication, we add the support of the Computing Sciences to provide programming tools and network expertise. To the student's understanding of the science and the languages of computers, we add the practical and theoretical skills of the Communication Department to produce effective multimedia specialists. The student may add additional writing courses from the English Department. In addition to courses in the major, the student will develop a content area in another discipline and will be required to produce a major project in this area. This culminating project will demonstrate practical experience as well as theoretical knowledge.

Major Electives (see department pages for course descriptions)

CMPS 312	Web Technology (or CMPS 202)
CMPS 376	Rapid Prototyping
COMM 310	Mass Communication Law
COMM 324	Advanced Newswriting
ECO 370	Interactive Marketing (prerequisite: MKT 351)

Media and Information Technology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	CMPS 134–136[1]	Computer Sci I–Computer Prog II	3	3
MAJOR	PHYS 104[2]	Intro. to Consumer Technology		3
COGNATE	ELECT	Elective		3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computer & Info Literacy	3	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro Phil–Theology I	3	3
GE HUM	HUMN ELECT	Humanities Elective	3	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	COMM 329	Graphics		3
COGNATE	ELECT	Electives	3	3
GE QUAN	MATH 204[3]	Special Topics of Statistics	3	
GE HUMN	ELECT	Humanities Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	COMM 317–318	Digital AV–Multi-Media Pres.	3	3
MAJOR	PHYS 204–CMPS 311	Information Tech–Networks	3	3
MAJOR	ELECT	Elective	3	
COGNATE	ELECT	Electives	3	6
MAJOR	ELECT	Electives	3	3
GE HUM	ELECT	Humanities Elective	3	
GE NCSI	NCSI ELECT	Natural Science Elective		3
			18	18
Fourth Year				
MAJOR	MIT 490	Information Technology Project	3	
MAJOR	PHIL-T/RS[4]	Computers & Ethics or equivalent		3
MAJOR	ELECT	Elective	3	
COGNATE	ELECT	Electives	3	6
GE ELECT	ELECT	Electives	6	6
			15	15

TOTAL: 130 CREDITS

To most effectively use the skills developed in the Media and Information Technology major, a content area is needed. Therefore, each student will complete either: (a) another academic major; or (b) an academic minor (or concentration) and take a course in Statistics[3] (Quantitative Reasoning Area).

[1] *Or CMPS 144*

[2] *Also GE NSCI requirement*

[3] *MATH 204 or any other statistics course that fits into GE QUAN. If the cognate is a second major in the sciences, any GE QUAN is acceptable.*

[4] *PHIL 214 Computers and Ethics or equivalent course in Philosophy or Theology/Religious Studies area.*

MIT 310	E-Research: Information-seeking Skills and Strategies
MIT 481	Internship in Information Technology
PHYS 103	Seeing the Light
PHYS 108	*New York Times* Physics
PHYS 113	Science of Photography
WRTG 211	Technical and Business Writing
WRTG 218	Writing the Web

Course Descriptions

MIT 310 3 cr.
E-Research: Information-seeking Skills and Strategies
This course concentrates on the use of the Internet for research in a variety of fields, emphasizing online research techniques and effective online search strategies, both of which will be valuable for careers in an e-world. Topics include organization of information; evaluation and selection of databases; evaluation of information from web resources; types of online information resources (e.g.. government documents, statistical sources; consumer, medical, and business information; online communities, etc.); online periodical databases; use of search engines; copyright and fair use issues; and citing electronic sources. Students will develop life-long learning skills for locating and evaluating information. Hands-on experience will be emphasized.

MIT 481 3 cr.
Internship in Information Technology
This is an extensive job experience in media and information technology that carries academic credit. Prior approval is required.

MIT 490 3 cr.
Information Technology Project
(Seniors only, departmental permission required). In this course, students prepare and present Information Technology projects to be evaluated by the instructor and their fellow students.

MILITARY SCIENCE/ ARMY RESERVE OFFICER TRAINING CORPS (ROTC)

LTC Mark Carmody, *Program Director*

Overview

The University of Scranton's Military Science Department, also known as the Royal Warrior Battalion, was named the top officer-producing program in the Second Brigade and was documented in the top 10% of 105 programs in the First ROTC Region (East Coast) for 2002. It was also selected as "Best Unit" for 1999 in the First ROTC Region, and the department established itself in the top 10% of all 270 ROTC programs in 1998.

The Royal Warrior Battalion has a flexible ROTC program that can be tailored to most students' needs, and classes are offered on campus. Two- and four-year programs are available, both of which lead to a commission as an officer in the United States Army (after passing a medical examination). Most students take one course per semester of the basic course program (freshman and sophomore years), and one course per semester of the advance courses (junior and senior years).

The Royal Warrior Battalion enjoys outstanding results in awarding scholarships. In fact, all qualified applicants from 1998 to 2002 who applied for a two-, three- or four-year campus-based scholarship were offered that scholarship. As of the spring 2003 semester, 162 students were enrolled in the Royal Warrior Battalion, with 86 scholarship recipients.

Advanced ROTC Course

Juniors, seniors and graduate students qualify for entry into the Advanced ROTC course in three ways:

1. **On-campus courses:** Most students take the introductory Military Science courses of the basic Military Science program on campus during their freshman and sophomore years. This allows them to participate in adventure training, and to learn about the opportunities and responsibilities of being an Army officer without incurring any obligation.

2. **Summer programs:** Students may also qualify through a paid, five-week Leadership Training Course (LTC) summer training session held in Fort Knox, Kentucky, which provides military training equivalent to the instruction received by freshmen and sophomores in the basic course program.
3. **Advanced Placement:** Students with any prior military service, members of the United States Army Reserves or National Guard, or former Junior ROTC members may qualify for advanced placement into the Advanced ROTC program.

Two-Year Program

Available to qualified full-time students (generally having a minimum of two academic years remaining to degree completion) who meet the criteria set forth in paragraphs (2) or (3) above. Application for this program should be made prior to the end of the spring semester of the sophomore year for those students not previously enrolled in Military Science instruction. Also available for graduate students.

Four-Year Program

Consists of attending the freshman and sophomore courses; students can begin as late as the fall semester of their sophomore year if approved by the department chair. Enrollment in the first four courses of Military Science is accomplished in the same manner as any other college course and carries no military obligation for non-scholarship students. Application to enroll in the advanced Military Science courses should be made while the student is enrolled in Military Science 202.

Each contracted student is required to complete the National Advanced Leadership Course (NALC), a paid, five-week training course held during the summer months between a students junior and senior year at Fort Lewis, near Seattle, Washington. Transportation, food, lodging, medical and dental care is provided at no cost to the student.

Scholarships

There are significant scholarship opportunities for ROTC students. Scholarships pay annually up to $17,000 for tuition, $600 for books, and $2,500-$4,000 stipend (paid monthly). The stipend pays $250 monthly (August to May) for freshmen and up to $400 monthly for seniors. Freshmen and sophomores can apply for three- and two-year full scholarships in December. Historically, most University of Scranton students win scholarships by their junior year. Winners of full, high school level, ROTC scholarships are provided free room and board by The University of Scranton.

Partner in Nursing Education (PNE)

In 1996, the Army designated The University of Scranton as a PNE and sends five high-school-level Army ROTC Nursing Scholarship recipients to Scranton each year. Additionally, Nursing students who complete the Army Nurse Summer Training Program (NSTP) receive 3 credits towards NURS 482 lab.

Transcript Credit

Up to 15 Military Science credits can be counted on the transcript. Additionally, Physical Fitness Training (PHED 138) can count for the 3 required Physical Education credits and nurses receive 3 credits toward senior-year clinicals for Army NSTP. Candidates for an Army commission through Military Science are required by regulation to complete academic courses in the areas of communications skills, military history, and computer literacy. Generally, these requirements will be met by satisfying the University's general-education requirements. Contact the professor of Military Science for specific requirements.

Minor in Leadership

American Military Leadership emphasizes total competence in one's field, coupled with an absolute respect for ethics. It is based on the knowledge of people, history, and current management practices. The Military Science Department offers a minor in Leadership that capitalizes on the classroom instruction offered in the courses listed below provided by several University departments. The minor also offers unique field experiences for students to practice leadership skills in demanding but safe and controlled training activities. The minor is open to all University students in the advanced military science courses.

A minor in Leadership requires 18 credits, at least six of which must be approved electives outside of the Military Science department. The student must take MS 301, MS 302, MS 401, and MS 402, plus courses from the list of approved electives. They must also complete a University internship approved by

the instructor of record, the Professor of Military Science. The student may choose two electives from the following approved courses:

CJ 237	MS 201, 202
GEOG 134	MS 480
HIST 214	MS 481
HIST 216	PHED 138
HIST 218	PS 130,131
HIST 219	PS 213
HIST 220	PS 227
HIST 223	PS 231
HIST 239	PS 232
INTD 103	PS 327
MGT 351	PS 329
MGT 352	PSYC 220
MGT 471	PSYC 236
MGT 490	PSYC 284
MS 101, 102	S/CJ 234

The student must receive a grade of C or better in each course in order for it to count towards the minor, and the student must have an average of 3.0 in the courses counting toward the minor.

Course Descriptions

MS 101-102 2 cr.
Concepts of Leadership I-II
Instruction is designed to provide basic understanding of military knowledge while concentrating on leadership skills and civic responsibilities important to all citizens. Students may elect to participate in activities that produce expertise in rappelling, orienteering, first aid, swimming and marksmanship.

MS 111-112 0 cr.
Leadership Applications Laboratory
Freshmen and sophomores are encouraged to participate in this elective. Hands-on instruction is designed to reinforce classroom training on weapons, first aid, tactics, leadership and military drill.

MS 131-132 0 cr.
Advanced Leadership Applications Laboratory
Advanced-course junior/senior students are required to attend. Students plan, resource and conduct training under the supervision of Army ROTC faculty and staff members. Emphasis is on reinforcement of classroom leadership training and military instruction to prepare juniors for situations they will experience at the advanced summer camp.

MS 201-202 4 cr.
Dynamics of Leadership I-II
Instruction is designed to familiarize the student with basic military operations and the principles of leadership. Students experience hands-on training with navigation and topographic equipment, first aid and military weapons.

MS 301-302 3 cr.
Military Leadership I-II
(Prerequisite: MS 201-202 or equivalent) This course continues to develop each student's leadership qualities and teaches students how to plan, resource and execute effective training in preparation for attendance at the National Advanced Leadership Course prior to their senior year. (MS 301 is 2 credits, MS 302 is 1 credit)

MS 401-402 3 cr.
Advanced Military Leadership
Taught by the Professor of Military Science, this course continues to develop the student's leadership skills. Emphasis is on operations of a military staff, briefing techniques, effective writing, army training systems, and the logistical and administrative support of military operations. (MS 401 is 2 credits, MS 402 is 1 credit)

MS 480 2 cr.
Internship in Military Science: National Advanced Leadership Course
(Prerequisites: MS 301, MS 302, contracted status as a cadet) This internship is a paid five-week experience of training and evaluation conducted at Fort Lewis, Washington with ROTC cadets from all across the country. It gives the student the opportunity to practice the leadership theory acquired in the classroom.

MS 481 1 cr.
Internship in Military Science: Cadet Troop Leading
(Prerequisites: MS 301, MS 302, contracted status as a cadet) This internship is a paid three-week experience of leadership training and mentoring. The intern leads and supervises soldiers in the planning and execution of the unit's scheduled training as an understudy to a military officer in the U.S. Army.

PHED 138 1 cr.
Physical Fitness Training
Stretching, strengthening exercises, and an aerobic workout, supervised by Army ROTC faculty. This course counts toward the 3-credit PHED requirement during the junior and senior years. This course is open to all students.

Neuroscience Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	BIOL 141–142	Gen. Biology I–II	4.5	4.5
COGNATE	CHEM 112–113	Gen. Analytical Chem. I–II	4.5	4.5
MAJOR (GE S/BH)	PSYC 110	Fundamentals of Psychology	3	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE FSEM	INTD 100	Freshman Seminar	1	
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE T/RS	T/RS 121	Theology I		3
			16	18
Second Year				
MAJOR	BIOL 348	Neurophysiology		3
MAJOR	ELECT	Major Elective		3
MAJOR	PSYC 231	Behavioral Neuroscience	4.5	
MAJOR	PSYC 210–330[1]	Psych. Stats–Res Methods in Beh. Sci.	3	5
COGNATE (GE QUAN)	MATH 114	Analysis I	4	
GE PHIL-T/RS	PHIL 120–T/RS 122	Intro. to Phil.–Theology II	3	3
GE HUMN	ELECT	Humanities Elective	3	
GE PHED	PHED ELECT	Physical Education	1	2
			18.5	16
Third Year				
MAJOR	MAJOR ELECT	Major Electives	6-8	3-4
COGNATE	ELECT	Cognate Electives	6-8	6-8
GE PHIL	PHIL 210	Ethics	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
			15-19	15-18
Fourth Year				
MAJOR	MAJOR ELECT	Major Elective	3-4	
COGNATE	ELECT	Cognate Electives	6-8	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE ELECT	ELECT	Free Electives	3	12
			15-18	18

TOTAL: 131.5-141.5 CREDITS

[1] *PSYC 330 fulfills one of the writing-intensive requirements of the general-education program.*

NEUROSCIENCE

J. Timothy Cannon, Ph.D., *Program Director*
See Psychology for faculty listing.

Overview

The foundation courses of this interdisciplinary curriculum are selected from the Biology, Psychology, and Chemistry departments. Depending upon the electives chosen, the program can prepare students for a variety of graduate programs within the field of neuroscience. Such graduate training may draw from a range of disciplines, including biology, psychology, anatomy, pharmacology, toxicology, biophysics, biochemistry and medicine. Students have ample research opportunities in laboratories that can support a diversity of behavioral, biochemical, neurophysiological and neuroanatomical investigations. The program is administered by an interdisciplinary committee.

Major in Neuroscience

42.5 to 46.5 credits. Majors must take two electives from both Biology and Psychology. Psychology electives must be drawn from PSYC 220, 221, 222, 225, 230, 234, 235, or, with permission of the director, PSYC 284 or 384. Biology electives must be drawn from those intended for Biology majors. With permission of the director, NEUR 384: Special Topics in Neuroscience may be used to fulfill one Psychology or Biology elective requirement.

Cognate in Neuroscience

31-37 credits. Students should consider their projected graduate program when choosing cognate electives from the areas of chemistry, mathematics, physics, and computer science.

Course Descriptions

NEUR 384
Special Topics in Neuroscience
(Formerly NEUR 170; prerequisites: BIOL 141-142, PSYC 231) Course topics are developed by individual faculty to provide in-depth coverage of specific areas in neuroscience. Some courses have required or elective laboratory components. Course titles and descriptions will be provided in advance of registration.

NEUR 493-494 3-6 cr.
Undergraduate Research in Neuroscience
(Formerly NEUR 160-161; prerequisites: BIOL 141-142, PSYC 231, PSYC 330, and permission of instructor) Individual study and research on a specific topic relevant to neuroscience under the supervision of a faculty member. It is strongly recommended that this research be initiated during the junior year, and it is expected that the research will extend over a two-semester period.

PHILOSOPHY

Faculty

William V. Rowe, Ph.D., *Chair*
Harold W. Baillie, Ph.D.
David W. Black, Ph.D.
Timothy K. Casey, Ph.D.
Matthew J. Fairbanks, Ph.D.
Christina Gschwandtner, Ph.D.
Richard J. Klonoski, Ph.D.
John W. McGinley, Ph.D.
Ronald McKinney, S.J., Ph.D.
Sharon M. Meagher, Ph.D.
J. Patrick Mohr, S.J., Ph.D.
Kevin M. Nordberg, Ph.D.
Ann A. Pang-White, Ph.D.

Overview

The basic objectives of the Philosophy Department may be stated as follows:

1. To inspire the student to confront the philosophical problems implicit in the experience of self, others and the universe, together with the question of their relations to ultimate transcendence (God and immortality);
2. To develop in the student habits of clear, critical thinking within the framework of both an adequate philosophical methodology and accepted norms of scholarship;
3. To introduce the student to reading critically the great philosophers, past and present; and
4. Finally, to help the student to formulate for himself or herself a philosophy of life or worldview consistent with the objectives of liberal education at a Catholic university.

For the Bachelor of Arts degree in Philosophy, the major must take 24 credits (eight courses) in Philosophy in addition to the 6 credits required of all students. These 24 credits must include a logic course and at least two courses on the 300 or 400 level. Majors should take logic before the senior year.

See also the Philosophy offerings in the SJLA Program described elsewhere in this catalog.

Minor in Philosophy

A minor in Philosophy consists of 18 credits – the 6 credits required of all students and 12 additional credits. Seven distinct philosophy minors are available: the traditional open minor, Ethical Issues of Professional Life, Philosophy and Commercial Life, Pre-Law, History of Philosophy, Philosophy and Religious Life, and Philosophy and Science. Course listings for specific minors are available on the Philosophy Department Web page or in the Philosophy Department office.

Course Descriptions

PHIL 120: Introduction to Philosophy is a prerequisite for PHIL 210: Ethics. PHIL 210 is a prerequisite for all other philosophy courses.

PHIL 120 3 cr.
Introduction to Philosophy
The aim of this course is to awaken in the student an appreciation of the nature and method of philosophical inquiry through an examination of key texts that grapple with central questions in the history of philosophy.

PHIL 210 3 cr.
Ethics
(Prerequisite: PHIL 120) An examination of moral issues through close readings of important historical texts such as the writings of Plato, Aristotle, Augustine, Aquinas, Kant or Mill.

Philosophy Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE PHIL)	PHIL 120–210	Introduction to Philosophy–Ethics	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE QUAN	QUAN ELECT	Elective	3	
GE NSCI–S/BH	NSCI ELECT–S/BH ELECT	Nat. Sci. Elective–Soc/Beh. Elective	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16	16
Second Year				
MAJOR (GE PHIL)	PHIL 200 or 300 level	Second-year Electives	3	3
GE PHIL-T/RS	T/RS 121–122	Theology I & II	3	3
GE HUMN	FOREIGN LANGUAGE[1]	Humanities Electives	3	3
GE S/BH–NSCI	S/BH ELECT–NSCI ELECT	Soc/Beh. Elective–Nat. Sci. Elective	3	3
GE ELECT	ELECT	Natural Science	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	PHIL 200 or 300 level	Third-year Electives	3	6
COGNATE	ELECT2	Electives	9	9
GE ELECT	ELECT	Electives	3	3
			15	18
Fourth Year				
MAJOR	PHIL 300 or 400 level	Fourth-year Electives	6	3
COGNATE	ELECT[2]	Electives	9	9
GE ELECT	ELECT	Electives	3	3
			18	15

TOTAL: 130 CREDITS

[1] *Foreign language is recommended by department.*

[2] *In the Cognate area of 24 hours, the department requires that 12 credits be focused in one field. It should be noted that 6 credits not required by the department in the major area are added to the free area in senior year. These may be taken in any field, including Philosophy.*

Themes will include happiness, virtue, the nature of justice, free choice, conscience, natural law and obligation, God and morality.

PHIL 211 **3 cr.**
(P) Business Ethics
This course is an application of standard philosophical principles and theories to the critical study of questions, issues, and problems that surround the moral conduct of business. Recommended for business majors.

PHIL 212 **3 cr.**
(P) Medical Ethics
Considering nine ethical methodologies, this course views health care holistically in terms of human biological and psychological needs to show that ethical action must intend to satisfy them. Ethical principles are applied to such issues as professional communication, sexuality, procreation, experimentation, bodily modification, and death. Recommended for health care students.

PHIL 213 **3 cr.**
(P) Environmental Ethics
An introduction to environmental philosophy and the various ethical responses to the ecological crisis of the late 20th century. Examines such issues as biocentrism vs. anthropocentrism, the relation between culture and nature, the environmental ethical debate.

PHIL 214 **3 cr.**
(P) Computers and Ethics
Ethical aspects of hacking, software, piracy, computer-aided decision making, protection of software by copyright, patent, trade secret laws, unauthorized use of computer resources, privacy and database security, program warranties and programmer responsibility, artificial intelligence, the interface between human and computer.

PHIL 215 **3 cr.**
(P) Logic
An introduction to logic as the science of argument including the nature of arguments in ordi-

nary language, deduction and induction, truth and validity, definition, informal fallacies, categorical propositions and syllogisms, disjunctive and hypothetical syllogisms, enthymemes, and dilemmas.

PHIL 218 3 cr.
(P,D) Feminism: Theory and Practice
What is feminism? What is the relationship between feminist theory and practice? This course focuses on these and related philosophical questions. Special attention will be paid to the interrelationship of gender, class and race. This course also fulfills a requirement in the Women's Studies Concentration.

PHIL 220 3 cr.
(P) Ancient Philosophy
The Pre-Socratics, Plato, Aristotle and their immediate successors. Special emphasis on the theory of knowledge, the metaphysics and philosophical anthropology of Plato and Aristotle.

PHIL 221 3 cr.
(P) Medieval Philosophy
A survey of philosophy in the European Middle Ages, including the connections between medieval philosophy and its classical and Christian sources; questions concerning nature/grace, reason/faith, theology/philosophy, and the nature and ethos of scholasticism.

PHIL 222 3 cr.
(P) Modern Philosophy I
Machiavelli and the break with the Ancients. Modern political thought and social contract. Hobbes with an appeal to the passions. Locke and theoretician of capitalism. Rousseau and the crisis of modern political thought. Foundations of modern epistemology. Descartes and the search for absolute certainty. Hume and empiricism.

PHIL 223 3 cr.
(P) Modern Philosophy II
The development of idealism in the thought of Kant, Fichte, Schelling, and Hegel, with its influence on Feuerbach, Marx, Engels, and Kierkegaard. Special consideration of dialectical thinking in its resolution of the antitheses of reality and appearance, freedom and necessity, infinite and finite, and faith and knowledge.

PHIL 224 3 cr.
(P) Foundations of Twentieth-Century Philosophy
A study of some of the key figures that have set the tone for the 20th-century philosophy. Buber, Marx, Kierkegaard, Hume and Russell are studied in detail.

PHIL 225 3 cr.
(P,D) Asian Philosophy
This course will introduce students to the various systems of Asian philosophy including Hinduism, Buddhism, Confucianism, Taoism and Shinto with special emphasis on the metaphysics, ethics and political philosophy of these systems.

PHIL 226 3 cr.
(P,D) Chinese Philosophy
An introduction to the classical Chinese understanding. The course examines Daoist teachings and vision, the thought of Confucius and Buddhism.

PHIL 227 3 cr.
(P) Political Philosophy
Philosophical and ethical analysis of the social nature of man with emphasis on modern social questions. Ethics of the family, of nation and of communities. International ethics.

PHIL 229 3 cr.
(P,D) Philosophy of Religion
An investigation of the main topics in philosophers' reflections on religion: arguments for the existence of God; meaningful statements about God; assessment of religious experience; notions of miracle, revelation, and immortality; the problem of evil; relations between religious faith and reason; religion and ethics. Readings from classical and contemporary authors.

PHIL 231 3 cr.
(P) Philosophy of Women
This course reviews the philosophies of woman in western thought from Plato and Aristotle to Nietzche, Schopenhauer, and Beauvoir. It concludes with an interdisciplinary selection of readings, to be addressed philosophically, on women in art, anthropology, literature, politics, theology, psychology, etc.

PHIL 232 3 cr.
Idea of a University
An investigation of the philosophy of a liberal education, using John Henry Newman's *Idea of a University* as a tool.

PHIL 234 3 cr.
(P) Existentialism
A critical study of selected works of Kierkegaard, Jaspers, Marcel, and Sartre, with special emphasis on the existentialist themes of selfhood, freedom, dread, responsibility, temporality, body,

limited and unlimited knowledge and reality, and fidelity to community.

PHIL 236 3 cr.
(P) Freud and Philosophy
Examination of overt and covert philosophical implications of Freud's system of psychoanalysis. Emphasis on actual writings of Freud, particularly after 1920.

PHIL 238 3 cr.
(P) Wealth and the Human Good
What is wealth? Is wealth the key to happiness? Is it possible for individual human beings and human society to flourish without wealth? What does it mean to say that the measure of success in contemporary consumer society is wealth? These and other questions related to life in modern capitalist commercial society will be addressed in the course.

PHIL 240 3 cr.
(P,W) Logic and Written Discourse
PHIL 240 is to equip students with an understanding of the conditions that constitute good reasoning, and also the skill to construct good arguments in writing. It covers the following four areas: the nature of logical arguments, deduction (e.g., syllogism, propositional logic), induction (e.g., analogical reasoning, causal inference), and fallacies

ED/P 306 3 cr.
(P) Philosophy of Education
An examination of representative modern systemic philosophies of education with a critical analysis of the answers that each system of philosophy provides to the important questions concerning the nature of knowledge, value, man and society.

PHIL 310 3 cr.
(P) Epistemology
An introduction to the theory of knowledge ranging from ancient to contemporary philosophy. Topics include sensation, perception, memory, recollection, reason, truth, science, technology, language, and the body. The unifying theme of the course is the historical importance of imagination and the central role it plays in knowing.

PHIL 311 3 cr.
(P) Metaphysics
A textual inquiry into the adequacy of philosophers' answer to the fundamental question, "What is?" Special attention will be given to Plato, Aristotle, Aquinas, Kant's critical philosophy and the issues of nature and history.

PHIL 312 3 cr.
(P) Modern Philosophy III
A study of 19th-century European philosophers such as Hegel, Nietzsche, Kierkegaard and Marx. We will consider the place of philosophy in history and society, the theme of conflict in life and thought, and the simultaneous spread and decay of humanism in Europe.

PHIL 313 3 cr.
(P) Philosophy and Friendship
An historical survey of primary texts which discuss friendship. Readings in the course include authors of the ancient, medieval, modern and contemporary periods in the history of philosophy. Some of these authors are, Xenophon, Plato, Aristotle, Cicero, Augustine, de Montaigne, Bacon, Kant, Emerson, Nietzsche, Gray, Arendt and Sartre.

PHIL 314 3 cr.
(P,D,W) Philosophy and the City
This course explores philosophical issues connected to urban and public policy. Students will analyze the relationship between philosophy and public life and will develop a deeper understanding of their own relation to the city and their roles as citizens.

PHIL 315 3 cr.
(P) Twentieth-Century Political Philosophy
This course is a survey of modern social contract theory and its relation to capitalism, and of modern Marxism. Issues raised will include obligation and consent, equality, freedom and self-determination, the role of markets, and the role of the state.

PHIL 316 3 cr.
(P,D,W) American Perspectives on Health-Care Ethics
This course will consider basic ethical issues in the practice and distribution of health care in the United States. Topics covered will include the physician-patient relationship, clinical issues such as transplants or end-of-life concerns, the nature of professionalism, just distribution, ethics in health-care institutions, and biomedical research. Recommended for those interested in the health-care professions.

PHIL 319 3 cr.
(P) Philosophy of Law
A study of the various justifications of law and their implications. Special consideration will be given to the problems of civil disobedience and the force of law in private institutions.

PHIL 320 3 cr.
(P) Aesthetics
The main theories of the essential character of beauty or art, how they are judged, how they are related to the mind and the whole person, how they are created and how this creativity expresses a commitment to oneself and to the world.

PHIL 321 3 cr.
Great Books
Major thinkers in the Western philosophical, religious, political and literary traditions. This course emphasizes philosophical themes in literature.

PHIL 325 3 cr.
(P) Literature and Ethics
This course examines the "old quarrel between philosophy and literature," the dispute between Plato and Ancient Athenian poets regarding the best and truest source of moral knowledge, and examines the impact of this quarrel on contemporary moral theory and practice.

PHIL 326 3 cr.
(P,D) Advanced Topics in Feminist Philosophy
(Prerequisite: PHIL 218, other women's studies courses, or permission of instructor.) This course will explore a special topic in feminist philosophy. Course may be repeated as topics vary. Possible topics might include: feminist aesthetics, issues of equality, theories of the body. This course is cross-listed with Women's Studies.

PHIL 327 3 cr.
Readings in the Later Plato
A survey and contextualization of the dialogues usually said to be "Later" in Plato's intellectual development will precede a textually based examination of those dialogues in which Plato's dialectic turns on the "concept" of difference. Thaetetus, Sophist, and Parmenides will be emphasized.

PHIL 328 3 cr.
(P) Philosophy of Literature
This course examines the nature of literature, and its relation to philosophy and political life. Students will study both classical texts on literature and contemporary Anglo-American examinations and appropriations of them, as well as recent European literary theory.

PHIL 331 3 cr.
(P) Feminist Philosophy of Science
A feminist critique of both the alleged value-free character of modern science and the positivist philosophy of science supporting this view. The course thus focuses on feminist arguments for the contextual, i.e., social, political and economic, nature of science and the resulting need to rethink such key concepts as objectivity, evidence and truth in light of androcentrism and gender bias. Consideration is also given to critical responses from feminist and nonfeminist defenders of more traditional accounts of science.

PHIL 340 3 cr.
(P,D) Philosophy and Judaism
A study of several Jewish thinkers who lived and wrote in the context of two "endings": the end of European Jewery in the Holocaust and the end of the Jewish Diaspora through the creation of Israel.

PHIL 410 3 cr.
(P) Philosophy of Culture
Examines the meaning of the term "culture." Explores the notions of civilization and barbarism, common principles in cultural development, and the interaction of such cultural forces as myth, magic, language, art, religion, science, and technology. Special attention will be given to the question of "progress" and "regress" in culture.

PHIL 411 3 cr.
(P) Thomas Aquinas: Philosophy and Controversy
PHIL 411 is a contextual study of Thomas Aquinas' philosophy, a great thinker in the 13th century. Selections from his metaphysics, ethics, and anthropology will be examined. His dispute with the Averroists on the status of the intellect, the condemnation of some propositions of his in 1277, and his later canonization in 1325 will also be discussed.

PHIL 412 3 cr.
(P,D) Art and Metaphysics
The course utilizes the work of Martin Heidegger as well as several contemporary American novels to explore the philosophical problem of nihilism as it manifests itself today in the relationship between modern technology and art. Special attention is given to modern architecture.

PHIL 414 3 cr.
(P,D,W) Philosophy of Emmanuel Levinas
This course is a study of the 20th-century Jewish philosopher Emmanuel Levinas. We will focus on Levinas' theory of ethical experience, an account that takes its categories from both Greek and Hebrew sources, thereby enriching the dialogue between Jewish and Christian traditions in philosophy.

PHIL 418 3 cr.
(P) Phenomenology
An introduction to this 20th-century European movement through selected works of Husserl, Heidegger, Sartre, and Merleau-Ponty. Topics include the nature of the self, lived experience, history, social reality, sense perception, technology and science, space and time, the lived body, and the theory of intentionality.

PHIL 420 3 cr.
(P) Philosophy of Rhetoric
A systematic investigation of the form, meaning and influence of rhetoric. Explores the relationships between topic and metaphor, logic and narration, ethos and logos, conscience and persuasion. Special attention is given to the various relationships between rhetoric and philosophy.

PHIL 425 3 cr.
Postmodern Philosophy
An examination of the transition from modernist culture and thought to postmodernist culture and thought. Derrida's method of deconstruction will serve as the paradigm example of postmodernism. Recommended for those interested especially in literature and fine arts.

PHIL 430 3 cr.
(P) Philosophy of the Social and Behavioral Sciences
The goal of the course is to encourage students to think philosophically about issues raised in social scientific studies, especially regarding the following: (1) the problem of cross-cultural understanding and interpretation, (2) the difficulties of research design and methodology, and (3) the relationship between social science, ethics, and policy making.

PHIL 431 3 cr.
(P) Philosophy of Science
An introduction to the history and philosophy of science. Selections from Darwin's *The Origins of Species* (1859) and *The Descent of Man* (1871) and Popper, Feyerabend, Hanson, Stace, Quine, Frank, Rescher, Hempel, and Baier.

PHIL 434 3 cr.
(P) Issues in Philosophy and Theology
This course will investigate certain modern and contemporary problems in the relationship between philosophy and theology. In particular, it will examine the ways in which philosophical discussions (both specific arguments and general positions) influence theological discussions, as evidence of the suggestion that philosophy "gives voice" to theology.

PHYSICS

Faculty

Robert A. Spalletta, Ph.D., *Chair*
W. Andrew Berger, Ph.D.
Joseph W. Connolly, Ph.D.
Paul F. Fahey, Ph.D.
John R. Kalafut, M.S.
Argyrios C. Varonides, Ph.D.
Christine A. Zakzewski, Ph.D.

Overview

The Department of Physics and Electrical Engineering offers majors in Physics and Biophysics, as well as the Electrical Engineering, Computer Engineering and Electronics-Business majors described earlier. The objectives of the department are to provide skills, understanding, and the methodology required to initiate active participation in the development of new knowledge about the material universe. The approach of the physicist, based as it is on the analysis of mathematical models dealing with matter and energy and their interactions, supplies a unique and important insight to the solution of problems in many disciplines.

A 1988 study by the Office of Institutional Research at Franklin and Marshall College shows that over 66 years, The University of Scranton ranked 33rd out of 977 four-year, private, primarily undergraduate institutions as the baccalaureate origin of physics doctorates. In addition, the Biophysics concentration in recent years has regularly produced students admitted to medical school.

Minor in Physics

21 credits, including PHYS 140, 141, 270 (all with labs), 352, ENGR 252, and at least one of PHYS 473, 372 and/or 371.

Major in Biophysics

The Biophysics major is designed to prepare a student to apply the physical and mathematical sciences to problems arising in the life sciences and medicine. By choosing proper electives, the student can prepare to enter graduate study of biophysics, biology, biochemistry, medicine or dentistry.

Course Descriptions

PHYS 100 3 cr.
(E) History of Science and Technology
The evolution of scientific enquiry in human history. Focus on key concepts and laws of nature that have enabled humans to develop modern technological societies. A major theme will be that science arises from traditions that are spiritual as well as technical, with the spiritual tradition being explored from the perspective of the life and traditions of the Catholic Church.

PHYS 101 3 cr.
(E) The Solar System
The study of the solar system, its origin, its evolution, its fate. Study of the planets, asteroids, meteors and comets. Theories about the cosmos from antiquity to the modern age.

PHYS 102 3 cr.
(E) Earth Science
Selected topics from geology and meteorology, weather forecasting, ground and surface water, mountain building, volcanoes, earthquakes, plate tectonics, and oceanography.

PHYS 103 3 cr.
(E) Seeing the Light
The physics of light and vision. Includes topics such as biophysics of the human eye, the visual system, color vision, binocular vision, and the wave nature of light.

PHYS 104 3 cr.
(E) Introduction to Consumer Technology
Every day we listen to the radio or compact-disc recordings, watch TV, use photocopiers and fax machines without really knowing how they work. Designed to provide the scientific background to understand the operation of common communication systems and electronic equipment.

PHYS 105 3 cr.
(E) Man and the Evolutionary Universe
The study of the universe from the ancient times to the present. The ideas and approaches of various peoples are to be discussed, from the era of the powerful myths to the scientific approach of the Greeks, up to modern times, focusing on man and the evolving universe, in a historical and modern perspective. The role and the involvement of the Church in scientific thinking will be stressed as well.

PHYS 106 3 cr.
(E) Energy and the Environment
Focus on various aspects of man's use of energy and changes in the environment that accompany that use. Sources of energy; the nature of the present energy and environmental crises and possible solutions; energy requirements of the future; conservation; and alternate energy sources.

PHYS 107 3 cr.
(E) "Hands-On" Physics
An introduction to the scientific method with an emphasis on physical reality. A series of experiments and discussions illustrate various physical phenomena allowing the participation in the assessment of important social, political, and scientific issues.

PHYS 108 3 cr.
(W,E) *New York Times* Physics
Every day we are bombarded with information regarding the impact of technology on our lives. Using *The New York Times,* students will explore the scientific and technological concepts of our modern world. Topics will vary weekly.

PHYS 109 3 cr.
(E) The Conscious Universe
A course that discusses and concentrates on matters like waves, auanta and quantum theory. Science will be viewed as a rational enterprise committed to obtaining knowledge about the actual character of physical reality and the character of the physical law.

PHYS 110 3 cr.
Meteorology
Focus on the basic physical and chemical phenomena involved in the determination of climate and weather, enabling the student to comprehend weather events, patterns, and forecasting. Topics include: atmosphere composition and structure, moisture and precipitation, cloud formation, pressure and wind, cyclones, circulation of atmosphere, air masses and fronts, and forecasting.

PHYS 113 3 cr.
(E) The Science of Light and Photography
An introductory-level science course intended for non-science majors covers the basic science of light and its application in the technology of photography. Topics range from a historical overview of early photographic methods to modern digital cameras. The scientific principles of light waves and rays, the optics of lenses, the process involved in picture taking and the formation and development of the image. Topics

Physics Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	PHYS 140–141	Elements of Physics I–II	4	4
COGNATE (GE QUAN)	MATH 103[1]–114–221	Pre-Calc. Math–Analysis I OR Analysis I–II	4	4
COGNATE	CMPS 134	Computer Science I		3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL-T/RS	PHIL 120	Introduction to Philosophy		3
GE FSEM–PHED	INTD 100–PHED	Freshman Seminar–Physical Education	1	1
			15	18
Second Year				
MAJOR	PHYS 270–352	Modern Physics–Stat. & Eng. Thermodyn.	4	3
COGNATE	ENGR 253–254	Intro. to CAD–3-D CAD	1	1
COGNATE	MATH 221–222 or 222–341	Analysis II–III OR Analysis III–Diff. Equations	4	4
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 121	Ethics–Theology I	3	3
			18	17
Third Year				
MAJOR	PHYS 447–448	Electromagnetics I–II	3	4
MAJOR	PHYS 371–372	Mechanics–Atomic & Laser Phys.	3	3
MAJOR	PHYS 350	Applied & Engineering Math		3
COGNATE/MAJOR	MATH 341/ELECT	Differential Equations or Elective	3-4	
GE PHIL-T/RS	T/RS 122	Theology II	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16-17	17
Fourth Year				
MAJOR	PHYS/EE	Electives	3	3
MAJOR	PHYS 493	Physics Research	3	3
MAJOR	PHYS ELECT	Elective	3	3
COGNATE	ELECT	Elective	3	
GE ELECT	ELECT	Free Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
			18	15

TOTAL: 134-135 CREDITS

[1] *Physics majors starting with MATH 103 due to placement test results take one fewer Physics elective.*

include the nature of light, laws of optics, development of black and white and color images, and digital electronics for photographic capture and display. Not for major elective credit in Physics, Biophysics or EE.

PHYS 114 **3 cr.**
Solar Electricity
The history, physics and engineering of obtaining energy from the sun, with special attention to environmental impact of Photovoltaic (PV) technology. Topics include: environmental protection, economic growth, job creation, diversity of supply, rapid deployment, technology transfer and innovation with a free, abundant and inexhaustible fuel source. Not for major elective credit in Physics, Biophysics or Electrical Engineering.

PHYS 120-121 **8 cr.**
(E) General Physics
(Prerequisites: MATH 103-114) General college course for pre-medical, pre-dental, biology, biochemistry and physical therapy majors. Mechanics, heat, electricity and magnetism, sound and light. Three hours lecture and two hours laboratory.

PHYS 140-141 **8 cr.**
(E) Elements of Physics
(Co-requisite: MATH 114-221) Calculus-based introduction to the elements of physics. Topics covered: mechanics, heat, sound, light and electricity and magnetism. Required of Physics, Electrical Engineering, Mathematics, Computer Science and Chemistry majors. Three hours lecture and two hours laboratory.

Biophysics Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE NSCI)	PHYS 140–141	Elements of Physics	4	4
MAJOR	BIOL 141–142	General Biology	4.5	4.5
COGNATE (GE QUAN)	MATH 103–114 or 114–221	Pre-Calc. Math–Analysis I OR Analysis I–II	4	4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE FSEM	INTD 100	Freshman Seminar	1	
			16.5	18.5
Second Year				
MAJOR	PHYS 270–352	Modern–Statistical Physics	4	3
MAJOR	CHEM 112–113	General Analytical Chemistry I–II	4.5	4.5
COGNATE	EE 241	Circuit Analysis		4
COGNATE	CMPS 134	Computer Science I	3	
COGNATE	MATH 221–222 or 222–341	Analysis II–III OR Analysis III–Diff. Equations	4	4
GE PHIL-T/RS	PHIL 120	Introduction to Philosophy	3	
GE PHIL-T/RS	T/RS 121	Theology I		3
			18.5	18.5
Third Year				
MAJOR	ELECT	Physics, Biology, or Chemistry	3	3
MAJOR	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
GE T/RS	T/RS 122	Theology II	3	
GE PHIL	PHIL 210	Ethics	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE PHED	PHED ELECT	Physical Education	1	1
			17.5	17.5
Fourth Year				
MAJOR	ELECT	Physics, Biology, or Chemistry	6	6
GE HUMN	HUMN ELECT	Humanities Electives	6	3
GE ELECT	ELECT	Free Electives	3	6
			15	15

TOTAL: 137 CREDITS

PHYS 100-114 are courses designed for non-science majors. They require no background in science or math.

PHYS 201 3 cr.
(E) Stellar Evolution
An introduction to astrophysics for non-science students, it concentrates on the study of the sun, stars and the universe. Their evolution, birth, lifetimes and deaths. The remnants of the stars, and exotic entities such as neutron stars, quasars, black holes. Galaxies and galaxy formations. The expanding universe. Red shifts and cosmological principles. Grand unified theories.

PHYS 204 3 cr.
Information Technology
Lectures and demonstrations are designed to describe and explain the basics of information technology and engineering for students outside the technical disciplines. It includes data representation, graphics and visual information, data compression, data transmission and network technology.

PHYS 270 4 cr.
Elements of Modern Physics
(Prerequisites: PHYS 141, MATH 114) Introductory modern Physics course for Physics and Engineering majors; also recommended for other science majors. Review of classical physics; special theory of relativity; atomic theory of hydrogen from Bohr to Schroedinger; multielectron atoms and the periodic table; introduction to nuclear physics. Three hours lecture and two hours laboratory. Lab fulfills a writing intensive requirement (W).

PHYS 350 3 cr.
Applied and Engineering Mathematics
(Prerequisites: MATH 222, PHYS 141) First- and second-order differential equations with constant coefficients; Fourier series and Fourier transforms and Laplace transforms; partial differential equations and boundary value problems; special functions, e.g., Bessel functions and

Legendre polynomials; numerical analysis and use of MAPLE software. (Also listed as ENGR 350.) Three hours lecture.

PHYS 351 3 cr.
Mathematical Physics II
Functions of a complex variable. Infinite series in the complex plane. Theory of residues. Conformal mapping. Fourier and Laplace transforms. Advanced partial differential equations. Boundary value problems in Physics. Green's functions.

PHYS 352 3 cr.
Statistical and Engineering Thermodynamics
(Prerequisite: PHYS 270) Derivation of Thermodynamics from probability theory and atomic physics; Laws of Thermodynamics; Maxwell relations; chemical potential and phase changes; refrigerators and heat pumps; theory of gasses and theory of solids. Special topics dependent upon interests of majors represented. (Also listed as ENGR 352.) Three hours lecture.

PHYS 371 3 cr.
Advanced Mechanics
(Prerequisite: MATH 341) Comprehensive course in Newtonian dynamics,variational principles, Lagrange's and Hamilton's equations; theory of small oscillations and specialized non-linear differential equations in mechanical systems.

PHYS 372 3 cr.
Atomic and LASER Physics
(Prerequisite: PHYS 270, MATH 222) Intensive and quantitative treatment of modern atomic physics using the principles and techniques of quantum mechanics. The study of energy levels, pumping, feedback and transition rates in lasers. Required of Physics majors and highly recommended elective for electrical engineers. Three hours lecture with optional laboratory.

PHYS 447 3 cr.
Electromagnetics I
(Prerequisites: PHYS 270, PHYS 350) Analytic treatment of electrical and magnetic theory; vector calculus of electrostatic fields; dielectric materials; vector calculus of magnetic fields. (Also listed as EE 447.) Three hours lecture.

PHYS 448 3 cr.
Electromagnetics II
(Co-requisite: PHYS 447) Magnetic materials, electromagnetic induction, displacement currents, Maxwell's equations; radiation and waves; applications include transmission lines, wave guides and antennas. (Also listed as EE 448.) Three hours lecture.

PHYS 448L 1 cr.
Electromagnetics Design Laboratory
(Co-requisite: PHYS 448) Laboratory designed to emphasis and reinforce the experimental basis of electromagnetism. Multi-week projects require the student to perform experiments that measure fundamental electrical constants, the electrical and magnetic properties of matter, and the properties of electromagnetic waves. (Also listed as EE 448L.) Two hours laboratory.

PHYS 460 3 cr.
Non-linear Systems and Chaos
Non-linear systems in mechanics and electronics are studied. Limit cycles, chaotic attractors, hysteresis, stability and phase space are defined and applied to complex systems. Classical oscillators, e.g., Duffing oscillator, the van der Pol oscillator and the Lorenz equations, will be solved through various approximation methods. Chaos, bifurcations, routes to chaos, chaotic maps, correspondence between maps and Poincare sections of physical systems will be studied.

PHYS 473 3 cr.
Optics
(Prerequisites: PHYS 270, MATH 341 or PHYS 350) An introduction to the principles of geometrical, physical and quantum optics. Topics to be covered include ray and wave optics, superposition, diffraction, interference, polarization, Fourier methods, and coherence theory. Practical devices such as photodetectors and light sources will also be discussed. Three hours lecture.

PHYS 474 3 cr.
Acoustics
(Prerequisite: PHYS 350) This course covers the fundamentals of vibration as applied to one-, two- and three-dimensional systems with varied boundary conditions. Transmission, absorption, attenuation, and radiation are covered. Resonators and wave guides and filters are studied along with the fundamentals of transducers. Acoustical issues in hearing are covered, time permitting.

PHYS 493-494 6 cr.
Undergraduate Physics Research I -II
(Prerequisite: Permission of the instructor) Students choose a research project sponsored by a member of the department and approved by the instructor and chairperson. Students gain experience with research literature, techniques, and equipment. Weekly seminars are given on quantum mechanics, mathematics tools, and topics related to ongoing research projects. A written report is required.

POLITICAL SCIENCE

Faculty

Leonard W. Champney, Ph.D., *Chair*
Jean W. Harris, Ph.D.
Robert A. Kocis, Ph.D.
William J. Parente, Ph.D.
Gretchen Van Dyke, Ph.D.

Overview

The Bachelor of Science program in Political Science imparts to students an understanding of:

1. The scope and purpose of government in civil society;
2. The origins, goals, and limitations of democratic government;
3. The structure and functions of the institutions of American government;
4. The similarities and differences in the structures and functions of the governments of other countries; and
5. The nature of the relationships among these governments in the international community.

The Political Science Department offers courses in the major subfields of political science: political institutions, political theory, international relations, comparative politics, public policy, and quantitative methods. In addition to the major in Political Science, the department offers a track in Public Administration and Public Affairs and a minor in Political Science.

Students in the major must take PS 130, PS 131, PS 212, PS 217, PS 240, and either PS 313 or PS 314. The remaining 21 Political Science credits required for the major are selected by the student.

Public Administration and Public Affairs Track

Political Science majors may concentrate in Public Administration and Public Affairs. This track is designed for students who may seek a career in government service at the federal, state, or local level. It develops analytic and quantitative skills, while providing substantive knowledge of a range of public-policy problems, and the management systems designed to implement policy decisions.

Students in this track complete the courses required for the Political Science major as well as PS 135: State and Local Government, PS 231: The Public Policy Process, PS 232: Public Administration, and PS 480: Public Administration Internship. For their remaining Political Science electives, students choose 3 courses from the following: PS 216, PS 227, PS 230, PS 319, PS 322, PS 325, PS 327, PS 329.

Students in this track would complete their cognate in one of two ways. For option one students complete HIST 110-111, HIST 120-121, ECO 153, ECO 154, ACC 253, ACC 254. Option two entails completing a minor, concentration, or another special program in consultation with Dr. Champney or Dr. Harris, the track advisors.

The department also recommends that students in this concentration take INTD 224: Science, Decision Making, and Uncertainty.

Minor in Political Science

To minor in Political Science, a student must take a minimum of 18 credits in Political Science, including PS 130-131: American National Government I-II.

Course Descriptions

IS 390 **3 cr.**
(W) Seminar in International Studies
Required for International Studies majors. Other advanced undergraduates may take this course with permission of the professor. This course can count for either Political Science credit or History credit.

PS 130-131 **6 cr.**
(S) American National Government
PS 130 addresses the key principles of American government: democracy, constitutionalism, separation of powers, and federalism. It also discusses political parties, voting, public opinion, interest groups, and the media. PS 131 addresses the structure and functions of the branches of government: Congress, the Presidency, Bureaucracy, and the Courts. It also discusses civil rights and civil liberties.

PS 135 **3 cr.**
(S) State and Local Government
The structures, scope, processes, and politics of state and local governments are analyzed. Also considered: the constitutional position of state and local governments; the changing relationships among federal, state and local governments; and

Political Science Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	PS 130–131	American National Government	3	3
COGNATE	HIST 110–111	U.S. History	3	3
COGNATE	ELECT	Elective		3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE T/RS–PHIL	T/RS 121–PHIL 120	Theology I–Intro. to Philosophy	3	3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	PS 212–217	Comparative Politics–Internat'l Politics	3	3
COGNATE	HIST 120–121	Europe: 1500 to Present	3	3
COGNATE	ELECT[1]	Elective	3	
GE QUAN	QUAN ELECT	Elective		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	PS 240–ELECT	Research Methods–Elective	3	3
MAJOR	PS 313 or 314–ELECT[3]	Political Ideas–Elective	3	3
MAJOR	PS ELECT	Electives		3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE ELECT	ELECT[2]	Free Electives	6	6
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
			18	18
Fourth Year				
MAJOR	PS ELECT	Electives	6	6
COGNATE	ELECT	Electives	3	3
GE HUMN	HUMN ELECT[2]	Humanities Electives	3	3
GE ELECT	ELECT[2]	Free Electives	3	3
			15	15

TOTAL: 130 CREDITS

[1] *ECO 101 and GEOG 134 are recommended as cognate electives.*

[2] *The department also recommends a modern foreign language in junior year with subsequent language courses to follow in senior year as part of GE humanities. The departmental advisor should be consulted.*

[3] *Political Science majors are required to take either PS 313 (Classical Political Ideas) or PS 314 (Modern Political Ideas). Both are strongly recommended.*

policy areas of interest to students in the class (educational policy, criminal justice policy, etc.).

PS 212 **3 cr.**
International Relations
This course examines the prominent tenets of international relations as an academic discipline. Secondly, students are provided with basic knowledge and tools for analyzing the international system as it unfolds today. A constant theme is bridging the gap between theory and practice of international relations.

PS 213 **3 cr.**
(D) Modern Africa
An introduction to the politics of major African states with emphasis on ethnic, racial, and religious tensions as well as the geopolitics of the region.

PS 216 **3 cr.**
(D) Women's Rights and Status
Public policies (formal and informal) and their implementation determine the rights of citizens. This course examines public policies that impact the legal, political, economic, and social status of women in the U.S. A historical exploration of women's rights will be the foundation for the examination of women's rights and status today. The future prospects of women's rights and status will also be discussed.

PS 217 3 cr.
Comparative Government
Political institutions of Germany, France, Britain, and selected Third World nations are analyzed with focus on elections, parties, interest groups and foreign policies.

PS 218 3 cr.
East European Politics
This course examines the history and politics of East Europe from Poland to the Balkans and from Germany to the Ukraine during the 20th century. Special attention is given to ethnic politics before and after the communist period and the economics of the new privatization and its problems.

PS 219 3 cr.
Survey of Latin American Politics
An overview of the political cultures and political dynamics of Latin America. A series of representative nations is examined to provide a general overview of the region. Topics include historical figures and events, the processes of democratization and modernization, and issues in contemporary politics.

PS 220 3 cr.
(S,D) Ideologies
A study of the three major political ideologies that shaped the 20th century (communism, fascism, and liberalism) and of those that may shape the twenty-first: feminism, racism, egalitarianism, environmentalism, libertarianism, and communitarianism.

PS 221 3 cr.
Politics of Southeast Asia
Domestic politics of Southeast Asia and international politics affecting the region. The ASEAN nations (Thailand, Indonesia, Malaysia, Philippines, Singapore, and Brunei) and Burma, the region's only socialist country, along with the three communist states of Indochina: Vietnam, Laos, and Cambodia are considered; spheres of influence and capitalism versus state socialism as a lever of economic development are also discussed.

PS 222 3 cr.
Politics in Russia
This course considers Russian politics and colonialism from the Revolution to contemporary economic efforts to move toward capitalism. The politics of the remnants of the Soviet empire are examined and Stalin and the Bolshevik experiment are also examined.

PS 227 3 cr.
(D) Women, Authority and Power
In our representative democracy, women are a minority of elected and appointed government officials. This course studies the historical and current paradox of women and U.S. public policy decision making. It examines the role of women in pressure politics, their integration into positions of political authority, and the future prospects for the political power and authority of women.

PS 230 3 cr.
(S) Environmental Laws and Regulations
Consideration of the variety of statutory laws legislated by Congress, as well as the variety of administrative rules and regulations promulgated by the executive branch. Policy areas include air pollution, water pollution, solid and toxic waste disposal, management of public lands, and the regulation of nuclear power. A brief introduction to international cooperation and conflict.

PS 231 3 cr.
(S) Environmental Policy Process
The role of the legislative, executive, and judicial institutions in shaping the content of environment policy. Discussion of the processes by which such policies are formulated and implemented, including consideration of the impact of federalism..

PS 232 3 cr.
Public Administration
A study of the structures, scope and processes of American public bureaucracies. The growth of the executive branches of governments, the role of public bureaucracies in our democratic government, and the experiences of American public bureaucrats are analyzed.

PS 240 3 cr.
(Q,W) Research Methods in Political Science
Consideration of both qualitative and quantitative research methods in the study of Political Science. Topics include: primary source material, legal research, analysis of aggregate data, analysis of survey data and use of focus groups. Special consideration is given to survey research and public opinion polling. Course also introduces principles of univariate, bivariate and multivariate statistical techniques.

PS 280 3 cr.
Pre-Law Internship

PS 310 3 cr.
Judicial Politics
Role of the federal and state court systems in our constitutional democracy, with an emphasis on their policy-making functions. Consideration of the factors shaping the judicial philosophies and political orientations of federal and state justices and judges.

PS 311-312 6 cr.
Constitutional Law
An examination, by means of case law, of the demands of liberty and the demands of democracy within the American Constitution. Topics include federalism, the separation and division of powers, social issues tied to industrialization and urbanization, commercial and property rights, and the rights of the poor and the oppressed as they arise in our legal framework.

PS 313 3 cr.
(D) Classical Political Ideas
An examination of philosophical questions about politics (including the nature of law, morals, justice, and authority; and the role of ideas in political and social life) in classical texts from East and West, from Lao Tzu and Plato to the beginnings of modernity and Machiavelli.

PS 314 3 cr.
(D) Modern Political Ideas
An examination of philosophical questions and politics (including the nature of law, morals, justice, and authority; and the role of ideas in political and social life) in modern texts from East and West, from the beginnings of modernity with Machiavelli to Marx and Mao.

PS 315 3 cr.
Contemporary Political Thought
A study, based on primary materials, of the current state of the controversies in contemporary political thinking. A wide range of perspectives, from far left to far right, will be analyzed and critically examined. Minimally, the works of John Rawls, Robert Nozick, C.B. MacPherson, Isaiah Berlin, and Leo Strauss will be included.

PS 316 3 cr.
Jurisprudence
An examination of the differences between "the law" and "the laws"; the nature of legal systems; the nature and grounds of political, moral and legal obligations, and the controversy between the traditions of Natural Law and Positive Law.

PS 317 3 cr.
Parties, Elections, and Interest Groups
Discussion of the historical development and current status of political parties and interest groups in the United States. Emphasis on the functions performed by political parties in our system vs. their functions in other systems, such as parliamentary democracies. Emphasis also on factors shaping the creation, maintenance, and political power of organized interest groups.

PS 318 3 cr.
(W) U.S. Foreign Policy: Cold War and Aftermath
Examines and analyzes critically the content of American foreign policy in the Cold War and post–Cold War eras. Special emphasis on themes, goals and means of American foreign policy, particularly national security.

PS 319 3 cr.
(W) U.S. Foreign Policy Process
Examines the actual formulation and implementation of American foreign policy within the decision-making process. Analyzes what the process is, who the decision makers are, and internal and external variables of policy making in the U.S. Involves at least two in-depth American foreign policy case studies.

PS 322 3 cr.
Public Personnel
(Prerequisites: At least two of PS 130, 131, 135, 231, 232 or permission of instructor) An examination of public-personnel administration and management. Theories of organization, personnel choices, personnel management, civil-service history, and current issues in personnel administration and management are considered.

PS 325 3 cr.
Politics of the Budgetary Process
(Prerequisites: At least two of PS 130, 131, 135, 231, 232 or permission of instructor) Public budgering in theory and in practice is discussed. Historical reforms and the inevitable politics of the process are considered. Use of budget simulations allow for practical experience.

PS 326 3 cr.
Theories of Political Economy
An examination of the works of the great thinkers in the tradition of the political economy, and an extensive study of the historical evolution of theories of value, the creation of value and the increase of productive abilities.

PS 327 3 cr.
U.S. Congress
Reading and discussion of selected Federalist Papers in order to appreciate the founders' views on human nature, the nature of government, democracy, and legislatures. An examination of the structure and function of the contemporary United States Congress, including the impact of political parties and interest groups on the business of Congress. Theories of representation are also considered.

PS 328 3 cr.
(D) Modern China
Study of modern Chinese politics in the 19th and 20th centuries. Problems of modernization, Westernization, and communism in the People's Republic of China.

PS 329 3 cr.
The American Presidency
This course will focus on the American presidency – historical development, powers of the office, elections, models of the presidency and, to a lesser extent, the relations between the president and congress, and the president and the judiciary.

PS 330 3 cr.
Western Europe in World Affairs
This seminar provides an historical, political, and analytical foundation for understanding the profound political and economic changes facing Europeans today. This involves studying the two world wars, the formation of Cold-War alliances and security systems, the European integration movement, the foreign policies of major European states, and organization of post–Cold War Europe.

PS 331 3 cr.
(W) The European Union
(Enrollment only by permission from the professor.) Provides an in-depth study of the European Union and its 15 member states in order to prepare students for an intercollegiate simulation of the EU, which is held in Washington, D.C., each December. Students examine the EU's theoretical and historical foundations, its institutions and policy procedures, and the ongoing challenges for European integration.

PS 332 3 cr.
(D) Modern Japan
This course examines the history and politics of Japan; the period of the shoguns; the reforms of the modernizing Meiji era at the end of the 19th century; the Japanese effort to conquer Asia; the postwar political structure; the question, "Is Japan a democracy?"; and the economic miracle of the present.

PS 338 3 cr.
Politics of Islam
The political ideology of Islam; efforts to establish theocracies in a number of states from Iran to Egypt to Malaysia and Indonesia; Islam as a political opposition in such countries as the Philippines, Russia, and China; Shiite versus Sunni sects; the politics of Israel and the Islamic states of the Middle East; OPEC; the Palestinian question; political terrorism; Islam as an expansionist ideology.

PS 384 3 cr.
Special Topics in Political Science
Study and analysis of selected topics in the field of Political Science. The particular topic or topics will vary from year to year depending on the instructor and changing student needs.

PS 480 3 cr.
Public Administration Internship I
Permission of faculty advisor and Dr. Champney required for internship registration.

PS 481 3 cr.
Public Administration Internship II
Permission of faculty advisor and Dr. Champney required for internship registration.

SPAN/PS 295 3 cr.
(S,D) Contemporary Mexican Culture and Language
An intersession travel course to Guadalajara, Mexico, for 3 credits in Humanities (foreign language area, intermediate and/or advanced level), 3 credits in the social sciences (political science), and cultural diversity credit. The course is team-taught by University of Scranton faculty from the Departments of Foreign Languages and Political Science with assistance from Mexican faculty at UNIVA.

PSYCHOLOGY

Faculty

Brad A. Alford, Ph.D.
Galen L. Baril, Ph.D.
James P. Buchanan, Ph.D., *Chair*
J. Timothy Cannon, Ph.D.
John J. Dunstone, Ph.D.
Thomas P. Hogan, Ph.D.
Christie Pugh Karpiak, Ph.D.
John C. Norcross, Ph.D.
John J. O'Malley, Ph.D.
Carole S. Slotterback, Ph.D.

Overview

Psychology provides a unique educational experience of quality, breadth and flexibility. Our curriculum has been carefully designed to give students a balanced education in the discipline and the widest range of career options, from baccalaureate entry-level positions to graduate training in prestigious universities. According to a recent independent study, the number of the University's graduates who have gone on to receive doctorates in psychology has placed us in the top 10% of comparable institutions nationally.

Psychology majors are required to take PSYC 110, PSYC 210, PSYC 330 with lab, PSYC 390 (fall, junior year), and PSYC 490-491 (senior year). Students also take a minimum of five courses from the following list with at least one course in each group: Physiological Processes (230, 231), Learning Processes (234, 235), Social-Developmental Processes (220, 221), and Individual Processes (224, 225). Students are free to choose from any of these or the remaining Psychology courses to fulfill the four additional course requirements in the major. Completion of two optional Psychology laboratory courses constitutes an elective course. Students are encouraged to take PSYC 493-494: Undergraduate Research in their junior or senior year.

The Psychology Department encourages students to tailor their programs to their own needs and interests. For example, students interested in marketing, personnel, or industrial-organizational psychology may elect a business minor and recommended courses in Psychology. Interdisciplinary programs, such as the Human Development Concentration, and dual majors with a number of other departments are also available. Students should consult their advisor and the *Psychology Handbook* for recommended courses, both major and cognate, tailored to their interests.

To avoid duplication of course content, Psychology majors may not register for the following courses: HS 242: Counseling Theories, HS 293: Research methods in Human Services, and HS 323:Psychiatric Rehabilitation. Students who wish to declare a minor or a second major in Human Services should consult their advisors and the chair of Human Services with regard to the above course restrictions.

Minor in Psychology

18 credits, consisting of PSYC 110, PSYC 210, PSYC 330 lecture, and one course from three of the following four groups: Physiological Processes (230, 231), Learning Processes (234, 235), Social-Development Processes (220, 221), and Individual Processes (224, 225). An equivalent statistics course and/or an equivalent methods course may be substituted for PSYC 210: Statistics and/or PSYC 330: Research Methods. Contact the Department Chair for a list of these courses. Any substituted course must then be replaced with a 3-credit Psychology course.

Course Descriptions

PSYC 105 **3 cr.**
(E) Brain and Human Nature
An examination of the human mind, brain and why we are the way we are. Topics include: the mind-body problem, the nature of consciousness, the evolution of behavior, addictions (e.g., love), eating disorders, depression, and aggression. (Credit cannot be earned for this course and PSYC 231; not open to Psychology majors or minors.)

PSYC 106 **3 cr.**
(E) Drugs and Behavior
This course will examine interactions between drugs and behavior. Behavioral topics will include: tolerance, addiction, learning, aggression, sexual behavior, eating, anxiety, depression and schizophrenia. Drug/drug categories will include: alcohol, cannabis, opiates, antidepressants and anti-anxiety. (Credit cannot be received for this course and PSYC 384; not open to Psychology majors or minors.)

Psychology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	PSYC 110[5]–ELECT	Fund. of Psyc.[5]–Psyc. Elective	3.5	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN	MATH[1]	Elective[1]		3
GE S/BH	SOC 1102	Intro. to Sociology[2]	3	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE PHIL	PHIL 120–210	Introduction to Philosophy–Ethics	3	3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16.5	16
Second Year				
MAJOR	PSYC 210–330	Statistics–Research Methods	3	5
MAJOR	MAJOR ELECT	Psychology Electives	3	3
GE ELECT	WRTG 211[2]	Technical & Business Writing[2]	3	
GE NSCI	NSCI ELECT[3]	Natural Science Electives[3]	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE PHED	PHED ELECT	Physical Education	1	1
			16	15
Third Year				
MAJOR	PSYC 390	Academic & Career Dev. in Psychology	1	
MAJOR	MAJOR ELECT	Psychology Electives	6	9
GE ELECT	ELECT	Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHIL-T/RS	T/RS 121–122	Theology I–II	3	3
			16	18
Fourth Year				
MAJOR	MAJOR ELECT	Psychology Elective	3	
MAJOR	PSYC 490–491	Hist. & Lit. of Psych. I–II	2	1.5
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE ELECT	ELECT	Free Electives	9	15
			17	16.5

TOTAL: 131 CREDITS

[1] *MATH 103 or 106 or 109 or 114*

[2] *The department strongly recommends WRTG 211 (Technical & Business Writing) in preparation for Research Methods and higher-level Psychology courses, and Soc 110 (Intro. to Sociology).*

[3] *BIOL 101 and either BIOL 201(Anatomy and Physiology) or BIOL 202 (The ABC's of Genetics) or BIOL 110-111 or BIOL 141-142. Lab credits for BIOL 110-111 and 141-142 can be placed in GE Elective areas.*

[4] *No more than 15 credits of Psychology electives may be placed in the free elective area.*

[5] *Entering fall-semester freshmen enrolled in the majors only PSYC 110 section must also enroll in PSYC 110L. PSYC 110L is required only for entering fall-semester freshmen.*

PSYC 110 **3 cr.**
(S) Fundamentals of Psychology
An introduction to the scientific study of behavior through a survey of psychology's principal methods, content areas and applications. Course requirements include participation in psychological research or preparation of a short article review.

PSYC 110L **.5 cr.**
Demonstrations For Fundamentals of Psychology
This lab is offered only in the fall semester and is restricted to and required only for students who enter the University as freshman Psychology majors and who are enrolled in the Psychology majors' fall section of PSYC 110. It is team taught by the psychology faculty and will entail exercises, simulations and applications. The course is graded pass/fail.

PSYC 210 **3 cr.**
(Q) Statistics in the Behavioral Sciences
Basic statistics in the behavioral sciences, including organization and display of data; measures of central tendency; variability; correlation and regression; one- and two-sample t-tests; confidence intervals, one-way and two-way analysis of

variance, chi-square; and consideration of effect size, power, and null hypothesis testing including types of errors. Introduction to the computerized statistical-analysis package SPSS-PC.

PSYC 220 3 cr.
(S) Social Psychology
(Prerequisite: PSYC 110) Social determinants of behavior from a psychological perspective. Topics include liking, love, conformity, persuasion, attitude change, and person perception.

PSYC 221 3 cr.
(S) Childhood and Adolescence
(Prerequisite: PSYC 110) Survey of psychological research dealing with the development and behavior of children. The physical, cognitive and social aspects of development, from infancy to adolescence, are considered.

PSYC 222 3 cr.
(S) Adulthood and Aging
(Prerequisite: PSYC 110) Survey of psychological research dealing with the age-graded aspects of behavior in adulthood. Course will consider the physical, cognitive and social aspects of the aging process from late adolescence to death. Topics include occupation selection, marriage, parenthood, middle age, retirement and dying.

PSYC 224 3 cr.
(S) Personality
(Prerequisite: PSYC 110) A survey and critical evaluation of personality and its implications for assessment, psychotherapy, and research.

PSYC 225 3 cr.
(S) Abnormal Psychology
(Prerequisite: PSYC 110) A comprehensive survey of mental and behavioral disorders from biological, psychological, and sociocultural perspectives. The course will consider diagnosis and labeling, overview of specific disorders, and various treatment approaches.

PSYC 230 3-4 cr.
Sensation and Perception
(Prerequisite: PSYC 110) Concerns the study of sensory mechanisms and perceptual phenomena. Optional lab entails supervised individual experimentation. Lecture, 3 credits; optional 1-credit laboratory. Lab fee; lab offered only in spring.

PSYC 231 3-4.5 cr.
(E) Behavioral Neuroscience
(Prerequisite: PSYC 110 or BIOL 141-142) Introduction to the field of neuroscience, examining the cellular bases of behavior, effects of drugs and behavior. brain/body correlates of motivation and emotion, and neural changes accompanying pathology. Three hours lecture and optional 1.5-credit laboratory. Lab fee; lab offered fall only.

PSYC 234 3-4 cr.
(S) Cognitive Psychology
(Prerequisite: PSYC 110) Considers a number of approaches to the study of human cognitive processes with an emphasis on the information-processing model. Topics include pattern recognition, attention, memory, imagery, concepts and categories, and problem solving. Lecture, 3 credits; optional 1-credit laboratory. Lab fee; lab offered fall only.

PSYC 235 3-4.5 cr.
Conditioning and Learning
(Prerequisite: PSYC 110) Concerns the experimental study of both classical and instrumental conditioning. Optional lab involves supervised animal and human experimentation. Lecture, 3 credits; optional 1-credit laboratory. Lab fee; spring only.

PSYC 236 3 cr.
Industrial/Organizational Psychology
(Prerequisite: PSYC 110) The psychological study of people at work. Topics include personnel selection and training, motivation, leadership, the physical work environment, and computer applications. Fall only.

PSYC 237 3 cr.
(D,S) Psychology of Women
(Prerequisite: PSYC 110) Examines the biological, sociological and cultural influences on the psychology of women. Topics include gender socialization, sex roles, and the impact of gender on personality, communication, achievement, and mental health. Fall, every other year.

Special Topics courses at the 200 level are developed by individual faculty to provide in-depth coverage of a specific area. Prerequisites include PSYC 110, at least sophomore status, and other Psychology courses as determined by the instructor. This course and PSYC 384 may be used only once to satisfy major elective requirements.

PSYC 284 3 cr.
Special Topics: Behavior Modification
Special Topics: Sports Psychology
Special Topics: Psychology of Language

PSYC 330 5 cr.
Research Methods in the Behavioral Sciences
(Prerequisites: PSYC 110; a grade of C or higher in PSYC 210) A survey of scientific method and research design in the behavioral sciences. Topics include single subject, survey, correlational and experimental research. Lecture and lab involve computerized data analyses. Lab also includes supervised research and scientific writing. Lecture, 3 credits; lab, 2 credits. Lab fee; lab offered only in spring. The laboratory is writing-intensive (W).

PSYC 335 3 cr.
(W) Psychological Testing
(Prerequisites: PSYC 110; a grade of C or higher in PSYC 210) Provides a thorough grounding in principles of testing and a review of the major types of assessment, including intellectual, personality, and interest.

PSYC 360 3 cr.
(W) Clinical Psychology
(Prerequisites: PSYC 110; a grade of C or higher in PSYC 225) An overview of contemporary clinical psychology focusing on its practices, contributions and directions. Topics include clinical research, psychological assessment, psychotherapy systems, community applications, and emerging specialties, such as health and forensic psychology. Fall only.

Special Topics courses at the 300 level are developed by individual Psychology faculty to provide in-depth coverage of a specific area. Prerequisites include PSYC 110, at least sophomore status, and other Psychology courses as determined by the instructor. This course and PSYC 284 may be used only once to satisfy major elective requirements.

PSYC 384 3 cr.
Special Topics: Psychopharmacology
(Prerequisite: a grade of C or higher in PSYC 231)
Special Topics: Cognitive Psychotherapies
(Prerequisite: a grade of C or higher in PSYC 225)
Special Topics: Multivariate Statistics
(Prerequisite: a grade of C or higher in PSYC 210)

PSYC 390 1 cr.
Academic and Career Development in Psychology
(Prerequisites: Junior standing; Psychology major) This seminar, designed for Psychology majors in their junior year, will entail studying, discussing, and applying information on academic planning, career development, and graduate school. Course requirements include attendance at several academically-related department events or psychologically related university presentations. Graded Satisfactory/ Unsatisfactory. Fall only.

PSYC 480 3 cr.
Field Experience in Clinical Settings
(Prerequisites: Junior or senior status; a grade of C or higher in PSYC 225; PSYC 335; PSYC 360; permission of instructor) This course entails supervised field experience in a mental-health or social-service facility in the community. Students are required to spend 8 hours a week at their placement and 1.5 hours a week in a seminar throughout the semester. The professor provides classroom instruction, and the on-site supervisor provides clinical supervision. Graded Satisfactory/Unsatisfactory.

PSYC 481 3 cr.
Field Experience in Personnel Psychology
(Prerequisites: Junior or senior status; a grade of B or higher in PSYC 236 and 335; MGT 361; permission of instructor) This course entails supervised field experience in a personnel office. Students are required to spend 10 hours a week at their placement and one hour periodically throughout the semester in a seminar. Graded Satisfactory/ Unsatisfactory. Offered as a reader.

PSYC 490 2 cr.
History and Literature of Psychology I
(Prerequisites: Senior standing; Psychology major or minor) This lecture and discussion course will examine the history of modern psychology from pre-Socratic philosophers to contemporary perspectives. Emphasis will be placed on the influential works of various schools of thought that have shaped the emergence of psychology. Fall only.

PSYC 491 1.5 cr.
(W) History and Literature of Psychology II
(Prerequisite: Senior standing; a grade of C or higher in PSYC 490) This seminar, designed for students with a major or minor in Psychology, will entail critical reading, analysis, and discussion of selections from the seminal literature in psychology, including selecred works of William James, Sigmund Freud, and B.F. Skinner. Individual professors will choose additional readings on the basis of their interests and student preferences. Spring only.

PSYC 493-494 3-6 cr.
Undergraduate Research
(Prerequisites: Junior or senior standing; PSYC 330; a grade of B or higher in PSYC 330 lecture and the Psychology course most relevant to research topics; permission of instructor) Individual study and research on a specific topic under the supervision of a faculty member. Students are expected to spend a minimum of 10 hours a week on research activities throughout the semester.

SOCIOLOGY

Faculty

Joseph F. Cimini, J.D., *Chair*
Thomas E. Baker, M.S.
Harry R. Dammer, Ph.D.
David O. Friedrichs, M.A.
John B. Pryle, M.A.
Loreen Wolfer, Ph.D.
Midori Yamanouchi-Rynn, Ph.D.

Overview

Courses in Sociology are designed to meet the intellectual and career interests of students who are concerned about what is happening in their society and in their daily personal interaction with other people. The courses are designed to help the student interested in social work, human services, industrial organization, urban planning, etc., to attain a pre-professional orientation to these fields.

Students interested in Urban Planning are advised to include SOC 116, 224, and 231 in their electives; for Social Work, SOC 234, 115, 116, 118, and 224; for Medical Services/Administration, SOC 216, GERO 212, 216, 218, and 230; for Human Resources/Administration, SOC 226, 227, and 228.

The Department of Sociology/Criminal Justice also administers the Criminal Justice major and the Gerontology major.

Minor in Sociology

18 credits, including SOC 110, SOC 112, and SOC 318. The following electives are strongly recommended by the department in the Sociology sequence: SOC 234, SOC 231, SOC 224, and SOC 226.

Major in Gerontology

The degree program in Gerontology has the following objectives:

1. To understand the processes of aging;
2. To prepare for careers in agencies and institutions serving the older adult, such as area agencies on aging, family services, long-term care facilities, federal, state, and local governmental agencies, retirement communities, business and industry, etc.;
3. To provide a liberal gerontology education with special emphasis on the development of the whole person; and
4. To provide students with academic preparation for advanced study in gerontology, social work, public administration, social welfare and related fields.

The Scranton area is especially suited to serve as a laboratory setting for gerontology education with its high proportion of older adults and its many agencies and facilities for the same. The department has established an Advisory Board in Gerontology composed of practitioners in the field: health specialists, community leaders, and senior citizens. The Advisory Board will help to ensure that the program curriculum is current.

Minor in Gerontology

18 credits, including SOC 110, GERO 110, and GERO 230. The following electives are strongly recommended by the department in the Gerontology sequence: GERO 218, GERO 216, GERO 212, GERO 232.

Course Descriptions

Sociology

SOC 110 3 cr.
(S) Introduction to Sociology
Fundamental principles in the field of sociology. Stratification, ethnicity, deviance; basic institutions of society; social change and demographic trends.

SOC 112 3 cr.
(S) Social Problems
Application of sociological principles to major issues in contemporary society.

SOC 115 3 cr.
Introduction to Social Work
Growth of social work as a professional endeavor. The scope of social work; casework in

Sociology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	SOC 110–112	Intro. to Sociology–Social Problems	3	3
MAJOR	SOC ELECT	Sociology Elective		3
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	SOC 318–224	Soc. Theory–Amer. Minority Groups	3	3
MAJOR	SOC 211	Methods of Social Research	3	
COGNATE	HS 241	Case Management and Interviewing		3
GE S/BH	GERO 110	Introduction to Gerontology	3	
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE QUAN	S/CJ 215	Statistics for the Social Sciences		3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	SOC ELECT	Sociology Electives	3	3
COGNATE	ELECT[1]	Political Science Elective	3	
COGNATE	ELECT[1]	Psychology Elective		3
GE ELECT	ELECT[1]	Social Science Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT	Free Electives	3	3
			18	18
Fourth Year				
MAJOR	SOC ELECT	Sociology Electives	6	3
MAJOR	SOC 480–481 or ELECT[2]	Internships or Electives	3	3
COGNATE	ELECT[1]	Social Science Electives	3	6
GE ELECT	ELECT	Free Electives	3	3
			15	15

TOTAL: 130 CREDITS

[1] *In the cognate Social Science electives, the department recommends a mix of Human Services, Criminal Justice, Gerontology, Political Science and Psychology electives, especially PSYC 224 (Personality).*

[2] *Department Recommendation: The social-work internship may be taken in either the junior or senior year, or both (not to exceed a maximum of 6 credits of internship).*

the medical, psychiatric, family and child welfare, and guidance fields, community organization, social research, social planning, social group work. Current trends in social work.

SOC 116 **3 cr.**
Community Organization
A general introduction to the process of community organization, as a field of both social work and human endeavor. The coordination and financing of welfare activities, methods of appraising community needs and resources, planning and the initiation of welfare services. Services of a voluntary and governmental nature, strategies of power.

SOC 118 **3 cr.**
Child Welfare
Development of child-welfare in the United States. Educational, health, recreational and child-labor regulations. Study and treatment of children in their own homes, foster homes and institutions. Child care and protective programs on federal, state and local levels.

SOC 132 3 cr.
Introduction to Archaeology
An introduction to the study of archaeology from anthropological and historical perspectives. Areas to be explored include survey and site recognition, excavation planning, record keeping, treatment of artifacts, and above-ground archaeology.

SOC 210 3 cr.
(D,W) Marriage and the Family
An historical, comparative, and analytical study of marriage and family institutions. Problems of courtship, mate selection and marriage adjustment in modern society.

SOC 211 3 cr.
Methods of Social Research
This course is designed to help the student understand the range of research methods used in sociological and gerontological research/investigations and evaluate their strengths and weaknesses. It will also help students to appreciate some basic problems involved in the collection and analysis of data.

SOC 212 3 cr.
Religion and Society
A survey of religious systems and their interrelations with society and social institutions, with emphasis on the social consequences and determinants of religious behavior. The theories of Durkheim, Weber, Parsons, Bellah, Berger and Luckman will be examined.

SOC 213 3 cr.
Collective Behavior and Social Movements
This course will examine collective behavior which includes protest demonstrations, riots, mass or diffuse phenomena such as fads and crazes, social movements, and revolution, with a decided emphasis on social and political movements. This course is recommended for those interested in sociology, political science, history, or other social sciences.

SOC 214 3 cr.
Sociology of Sport
The role of sport in civilized societies; sport as work and recreation; women and minorities in sport; sport in education; sport and the mass media.

SOC 215 3 cr.
Feminism and Social Change
This course examines the relationship between feminism and social change, studying feminist movements and how feminist ideologies, strategies, and individuals influenced social movements. It also explores outcomes of women's movements, the mobilization of counter-movements, and the consequences of feminism for Society for various organizational and professional roles and for individual women.

SOC 216 3 cr.
Medical Sociology
The social dimensions of health and illness; role of physician, nurse and patient; social organization of health services; the content of medical practice; culture and health disorders; mental health and mental illness.

SOC 217 3 cr.
(D,W) Family Issues and and Social Policy
This *service-learning course* examines family problems of work and poverty, separation and divorce, family violence, and elder care, addressing each in terms of describing the social problem and why it exists and the program/policies designed to address it. Students are offered solutions and are helped and are helped to apply multicultural interpretations.

SOC 224 3 cr.
(S,D) American Minority Groups
Patterns of adjustment between ethnic and racial groups, with special attention given to the American scene. Prejudice and discrimination as opposed to the democratic ideology.

SOC 226 3 cr.
Sociology of Work and Professions
The nature and role of contemporary occupations and professions in the life cycle are discussed; occupational choice, career patterns and occupational mobility are noted. The student is made aware of the relationship among education, work and aspirations. The career path from entry-level job to retirement is examined.

SOC 227 3 cr.
Business and Society
Modern industrialism as social behavior. Social conditions in the rise of industrialism and their effect on the worker; collective bargaining and industrial conflict, the industrial community; social classes and the industrial order. This course also shows how the business sector impacts on society and on the globalization of the economy.

SOC 228 3 cr.
Social Psychology
Study of individual behavior as affected by cultural and social stimuli. Emphasis on the analysis of human conduct in social settings.

SOC 229 3 cr.
Crisis in Population
A study of the basic variables of population, birth, death and migration, socioeconomic and cultural variables affecting population growth, projections and forecasts. The chief natural and social demographic theories. Population policies and practices in selected world areas.

SOC 231 3 cr.
Urban Sociology
Urban ecology and culture as the dominant form of community life in contemporary society; their characteristics, peculiarities, and problems.

SOC 232 3 cr.
(D) Great American Cities
A sociological trip through 20 selected major U.S. cities will encounter a variety of cultures and examine that matrix of ideas, creeds, religions, races, ethnicities, attitudes, habits, artifacts and institutions - social, educational, artistic, political, and economic - which condition the way the people in each city lives.

SOC 234 3 cr.
(S,D) Cultural Athropology
Cultural and social organization among primitive or preliterate societies; marriage, property, religion, magic and tribal control. Significance of the study of primitive cultures for understanding of urban industrial civilizations.

SOC 235 3 cr.
Peoples of East Asia
The anthropology of the East Asian culture area, focusing particularly on China and Japan. Topics include basic social institutions, world views, culture and personality, and the problem of modernization.

SOC 284 3 cr.
Special Topics in Sociology
(Prerequisite: Consent of the chair and the instructor) Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum.

SOC 318 3 cr.
Sociological Theory
An examination of the major theoretical developments in sociological theory from the classical period of Marx, Weber, and Durkheim to contemporary schools such as structural-funcrionalism, conflict theory, exchange theory, and symbolic interaction.

SOC 382-383 3 cr.
Independent Study in Sociology
(Prerequisite: Consent of the chair and instructor) Designed for advanced students who are capable of independent study. A program of planned research under the guidance of a faculty member.

SOC 480-481 3 cr.
Internship in Social Work
(Prerequisite: Junior or senior standing; permission of instructor) Supervised experiential learning designed to broaden the educational experience of students through practical experience and work assignments with governmental and/or community agencies in the field of social work. Supervision by a faculty member and agency supervisor.

Approved courses from other curricula: Sociology majors may be advised to choose several courses taught in the Criminal Justice sequence; courses so approved include:

S/CJ 210	Law and Society
S/CJ 213	Criminology
S/CJ 214	Juvenile Delinquency
S/CJ 218	The American Court System
S/CJ 220	Penology: Corrections
S/CJ 221	Community-based Corrections
S/CJ 224	Sociology of Deviance
S/CJ 225	White Collar Crime
S/CJ 227	Organized Crime Patterns
S/CJ 317	Trial, Jury and Counsel
S/CJ 324	Victimology

Gerontology

GERO 110 3 cr.
(S) Introduction to Gerontology
A multidisciplinary examination of the cognitive and affective aspects of aging. The course covers social, physiological, psychological, economic, and health aspects of aging, as well as service-delivery systems. It explores planning and action strategies aimed at enhancing the quality of life and providing adequate benefits and services for the elderly.

GERO 112 3 cr.
Social Problems of Aging
This course studies specific problems of the aged in America, with attention to issues of inequality in opportunities and rewards; of mental health, housing, minorities, and institutions; of crime and victimization; of economic status, work, leisure, and retirement; of attractiveness, aging and sexuality; of drugs, doctors, nursing homes and hospitals.

Gerontology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	SOC 110	Introduction to Sociology	3	
MAJOR	GERO 110	Introduction to Gerontology		3
MAJOR	GERO 218	Health and Aging		3
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE T/RS	T/RS 121	Theology I		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	GERO 232–230	Aging and Death–Social Policy and Aging	3	3
MAJOR–GE QUAN	SOC 211–S/CJ 215	Methods of Soc. Research–Stats for Soc. Sci.	3	3
COGNATE	HS 241	Case Management and Interviewing	3	
GE S/BH	SOC 224	American Minority Groups		3
GE PHIL	PHIL 210	Ethics	3	
GE T/RS	T/RS 122	Theology II		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	GERO ELECT1	Gerontology Electives	3	3
COGNATE	PSYC 222–SOC 228	Adulthood and Aging–Social Psychology	3	3
COGNATE	HADM 112–SOC SCI	Health Systems–Social Science Elective	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT	Free Electives	3	3
			18	18
Fourth Year				
MAJOR	GERO ELECT	Gerontology Electives	3	6
MAJOR	GERO 480-481/ELECT[1]	Internships and/or Electives	3	3
COGNATE	ELECT	Social Science Electives	6	3
GE ELECT	ELECT	Free Electives	3	3
			15	15

TOTAL: 130 CREDITS

[1] *Department recommendation: The Gerontology Internship may be taken in either the junior or senior year, or both (not to exceed a maximum of 6 credits of internship).*

GERO 210 3 cr.
Aging Around the World
A cross-cultural approach looking at the ways in which a variety of societies deal with aging and the aged. The issues of work, economics, other types of expertise and different definitions of the aged are analyzed.

GERO 212 3 cr.
Aging and the Life Cycle
Rites of passage, age norms, and role rehearsals for life transitions; the life cycle in comparative cultures; sociological dimensions of adulthood and aging concerning the work cycle, sport and leisure development, patterns of consumer behavior and life style, and the family cycle.

GERO 214 3 cr.
Aging and Human Behavior
A critical examination of life satisfaction in old age; the social and psychological factors which affect it; factors contributing to the psychological well-being of older adults as a function of their position in the social system.

GERO 216 3 cr.
Aging and the Community
Consideration of selected community strategies effecting desired changes in the development

and implementation of social services and programs for the elderly: legislative action, interagency relationships, the citizen role.

GERO 218 3 cr.
Health and Aging
An explorative study of the mental and physical health problems prevalent in the older adult population, with emphasis upon the preventive aspect of health care as applied by themselves and health-care providers. Health-care approaches appropriate to the various problems, and relevant resources within the home and community are considered.

GERO 220 3 cr.
Crime and Aging
A consideration of crime as it affects aging; examining the older adult as victim, offender, practitioner, and perpetrator, in light of current thought, policy, and law.

GERO 230 3 cr.
Social Policy and Aging
Review of major legislation affecting older adults, including the Social Security Act, Older Americans Act, Medicare, and various local, state, and national programs for the aged.

GERO 232 3 cr.
Aging and Death
This course offers the student an opportunity to explore the mystery and meaning of death. Focus is on a number of aspects of dying and the death process, such as the dying individual and the family; cross-cultural perspectives; terminal illness; professions and death; rites and rituals.

GERO 284 3 cr.
Special Topics in Gerontology
(Prerequisite: Permission of the chair and the instructor) Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum.

GERO 382-383 3 cr.
Independent Study in Gerontology
Designed for advanced students who are capable of independent study. A program of planned research in gerontology under the guidance of a faculty member. Registration upon approval of the chairperson of the department and the instructor directing the study.

GERO 480-481 3 cr.
Internship in Gerontology
(Prerequisite: Junior or senior standing; permission of instructor) Supervised experiential learning in one or more organizations that serve older adults. Supervision by a faculty member and agency supervision required.

THEOLOGY/RELIGIOUS STUDIES

Faculty

E. Springs Steele, Ph.D., *Chair*
Scott C. Bader-Saye, Ph.D.
John J. Begley, S.J., Ph.L.
James Brian Benestad, Ph.D.
Stephen J. Casey, M.A.
Mary Anne Foley, Ph.D.
Brigid C. Frein, Ph.D.
Maria Poggi Johnson, Ph.D.
Albert M. Liberatore, S.T.D.
Susan F. Mathews, Ph.D.
Kelli O'Brien, Ph.D.
Charles R. Pinches, Ph.D.
Eric A. Plumer, Ph.D.
Thomas F. Sable, S.J., Ph.D.
Marc B. Shapiro, Ph.D.

Overview

As "faith seeking understanding," theology plays an essential role in the quest for God, wisdom, and human fulfillment. Catholic education recognizes that theology addresses certain basic human questions in ways that speak to the heart and mind as no other discipline can. Theology approaches such questions not in isolation, but as a partner in a living exchange between the Church and the diverse traditions of the world. Theology/Religious Studies courses seek to form conscience and character, helping our students address contemporary questions of good and evil, freedom and truth, life and death. In addition to courses with a primarily Christian focus, the department offers courses in non-Christian religious traditions. The General Education requirement of 6 Theology credits for all students is fulfilled by T/RS 121-122, a two-semester introductory sequence. These courses must be completed before students take upper-division courses in Theology.

Major in Theology/Religious Studies

The Bachelor of Arts degree in Theology/Religious Studies requires 30 credits in the major (including the two introductory courses), allowing for a second major and/or minor or concentration in many fields. Theology majors must take at least four courses at the 300 or 400 level, including at least one semester of the Theology Capstone Seminar, T/RS 490. To ensure a well-rounded background in the discipline, each major must take at least one course from each of the following categories:

Old Testament:	T/RS 210, 310, 311, 312, 313, 440
New Testament:	T/RS 314, 315, 316, 317, 318, 441
History:	T/RS 213, 215, 217, 218, 319, 320, 321, 322, 323
Doctrine:	T/RS 220, 222, 328, 329, 330, 331
Moral Theology:	T/RS 230, 231, 232, 236, 332, 334, 335, 337

Pastoral Studies Track

Completion of this track will be noted on the Theology major's transcript. The student must minor in Counseling/Human Services, including in that minor HS 111, HS 112, HS 241 and HS 341. Included among the courses for the major or minor must be: T/RS 338 Psychology and Spirituality, Internship in Pastoral Studies with placement in a pastoral setting, and a pastoral studies capstone seminar.

Theology/Religious Studies Minor

The minor in Theology/Religious Studies requires 18 credits: T/RS 121 and 122 plus four more courses. In choosing courses for a minor, students may concentrate in one area of theology or they may select courses from several areas.

Course Descriptions

T/RS 121 3 cr.
(P) Theology I: Introduction to the Bible
A survey of central texts and themes of the Bible. Its purpose is to develop biblical literacy as well as skills in interpreting various literary forms and key theological concepts.

T/RS 122 3 cr.
(P) Theology II: Introduction to Christian Theology
(Prerequisite: T/RS 121) A survey of key Christian themes: creation, Christ's incarnation and redemption, the Church and sacraments, Christian personhood, and the practice of prayer, virtue, and hope for the future.

T/RS 210 3 cr.
(P,D) Jews, Christians, and the Bible
(Formerly T/RS 207) A survey of ancient and modern ways of reading the Bible. The focus will be on a group of central biblical figures whose stories will be examined in the context of ancient Israelite history and society. The biblical stories will then be compared with later elaborations by Jewish and Christian interpreters.

T/RS 211 3 cr.
Perspectives on Western Culture
The religious, philosophical and political writings of major thinkers of the Western tradition. The first semester includes the study of the Bible, Aristotle's Ethics, Plato's Apology, Augustine's City of God, and the thought of Aquinas. Emphasis is on the study of these works as they illuminate the current world.

T/RS 212 3 cr.
Saints and Holiness
An inquiry into the nature of Christian sanctity by an examination of the lives and accomplishments of traditional saints and of contemporary persons who respond to the Gospel message.

T/RS 213 3 cr.
American Catholic Thought
The major themes of American Catholic tradition from colonial times to the present are placed in their historical, religious, social and political context.

T/RS 214C 3 cr.
(P,W) Inside the Catholic Tradition
(Formerly T/RS 184C)This introduction to Catholic Tradition will study its scope, depth, and ongoing development, reception, and characteristics. Topics covered include Faith and Revelation, the intercommunion of Scripture and Tradition, the role of Magisterium, and the development of doctrine. Selected readings are taken from important conciliar texts and theologians.

Theology/Religious Studies Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE T/RS)	T/RS 121–122	Theology I–II	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE QUAN	MATH ELECT	Quantitative Reasoning Elective		3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	T/RS ELECT	Theology Electives	3	3
COGNATE	ELECT	Electives	3	
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective		3
GE PHIL	PHIL 210–ELECT	Ethics–Phil. Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16
Third Year				
MAJOR	T/RS ELECT	Theology Electives	3	6
COGNATE	ELECT	Electives	9	9
GE ELECT	ELECT	Electives	3	3
			15	18
Fourth Year				
MAJOR	T/RS 490	Topics in Theological Investigation		3
MAJOR	T/RS ELECT	Electives	6	
COGNATE	ELECT	Electives	9	9
GE FREE	ELECT	Electives	3	3
			18	15

TOTAL: 130 CREDITS

T/RS 215 3 cr.
(P,W) The History of Christian Theology
(Formerly T/RS 210) A study of the vital growth of Christianity's life, doctrine, worship and spirituality over the centuries. Special emphasis will be placed on principal leaders, thinkers and heroes.

T/RS 216 3 cr.
(P) Judaism in Modern Times
This course is a detailed study of the history of modern Judaism (1700 to present) in all of its aspects, including Messianism, Hasidism, Jewish Emancipation, new Jewish religious movements, Zionism, Holocaust, and the rise of the State of Israel.

T/RS 217 3 cr.
(P,D) The Holocaust in Context: History and Theology
An exploration of the Holocaust through the perspective of the history of anti-Semitism. The course will examine the historical aspects of the Holocaust as well as the moral and theological issues raised by it.

T/RS 218 3 cr.
(P,D) Women in Christianity
(Formerly T/RS 315) An exploration of some of the major roles women have played in Christian thought and experience, including their contributions as disciples, spiritual guides, and social critics. Will also examine assumptions about male and female identities and consider challenges to traditional roles.

T/RS 219 3 cr.
(P,D) The Religions of the World
(Formerly T/RS 314) An exploration of belief in the traditions of the classical historical religions of the world through both systematic analysis and the reading of sacred texts.

T/RS 220 3 cr.
(P) Spirituality: Liturgy and Sacraments
A basic course in sacraments which explores the religious experience of the faith community and

its expression in sacraments. Two features of the Rite of Christian Initiation of Adults, its process-orientation and the role of community, will serve as basis for the examination of new sacramental models. Specific attention will be given to the development of a sacramental spirituality.

T/RS 221 **3 cr.**
Prayer
Introduction to the nature, purpose, and method of prayer in the Catholic Christian tradition.

T/RS 222 **3 cr.**
(P) Introduction to Liturgical Theology
This course will consider the relationship between liturgy and theology, as realities in the Christian life which form and inform one another. Fundamental documents of the Roman liturgy will be introduced, with an eye toward discerning insights into God, Christ, the Church, the sacraments and the human person which are embodied therein.

T/RS 223 **3 cr.**
Introduction to the Theology of the Byzantine Churches
(Formerly T/RS 225) The Byzantine theological tradition develops special emphases within the mainstream of the Christian tradition. This course introduces the student to the study of some of the specifically Byzantine contributions to the understanding of the Christian mystery, with particular emphasis on early developments.

T/RS 224 **3 cr.**
(P) Introduction to Eastern Liturgies
(Formerly T/RS 226) A survey of the Eastern Eucharistic Liturgies with particular emphasis on the structure, history, and liturgical theology of the Byzantine Liturgy of St. John Chrysostom.

T/RS 225 **3 cr.**
(P) A Theology of Marriage
(Formerly T/RS 240) This course will introduce students to the theology of marriage. It will focus on the distinctiveness of Christian marriage, its sacramentality, marriage as a vocation and covenant, love and friendship in marriage, sex, singleness, family and children. Questions of the state of the institution of marriage in contemporary culture will also be discussed.

T/RS 226 **3 cr.**
(P) Faith and Healing: God and Contemporary Medicine
(Formerly T/RS 313) This course will consider the history of Western medicine in the light of a range of Christian notions such as that life is a gift from God, that the body is good, that illness is a (limited) evil, that health is a responsibility. In this light, the idea that medicine is a calling and healing an art will be considered.

T/RS 227 **3 cr.**
(P) Biomedical Ethics
(Formerly T/RS 330) This course will present theological reflections on the two main ethical theories undergirding contemporary biomedical ethics. It will also present and discuss relevant philosophical and theological arguments on such issues as abortion, care of handicapped infants, euthanasia, suicide, and the profession of medicine.

T/RS 228 **3 cr.**
Parables in Pop Culture
(Formerly T/RS 214) This course is designed to help students attend to and interpret the narratives of popular culture from the perspective of Christian faith. We will discuss Jesus' use of parables, engage the theological tradition of "finding God in all things," and analyze a variety of artistic productions (movies, television and music) that represent dominant themes of contemporary culture.

T/RS 230 **3 cr.**
Moral Theology
A study of the Christian moral tradition, its history and principles. Among areas to be treated are: the family, sexual activity and human rights.

T/RS 231 **3 cr.**
(P) Social Ethics
This course will prepare students to recognize ethical dimensions of political, economic and social issues through the study of the following: pertinent writings of Pope Paul VI and Pope John Paul II, a classic work of political theory, and several contemporary writings on such issues as morality, foreign policy and economic justice.

T/RS 232 **3 cr.**
John Paul II and Catholic Social Thought
This course will explore the dialogue between the Catholic Church and modern ideologies on social and political matters. Readings include pertinent documents of the Second Vatican Council and recent papal writings, especially those of Pope John Paul II.

T/RS 233 **3 cr.**
(P,W) Suffering
This course examines the way in which Christians and Jews narrate their suffering in the context of God's purposes. Traditional formulations

of "the problem of evil" will be critiqued, and the concept of redemptive suffering will be explored.

T/RS 234 3 cr.
(P,D) Twentieth-Century Peacemakers
A study of some of the principles and methods of "waging peace" found in the lives and writings of Mohandas Ghandi, Dorothy Day, Thomas Merton and Martin Luther King.

T/RS 235 3 cr.
(P) The Theology of Birth and Death
This course will investigate the meaning and significance of the birth and death of human beings in the Christian tradition. Related topics will be: suicide, euthanasia, capital punishment, contraception and abortion.

T/RS 236 3 cr.
(P,W) Prophets and Profits: The Economy in the Christian Life
An inquiry into the witness of the Church with regard to questions of wealth, business, economics and formulation of public policy. Biblical sources, Church tradition, and contemporary narratives will be employed to assess the common good.

T/RS 237 Politics: A Christian Perspective
An inquiry into the role of the state, the Church and the individual in political life. Special attention is given to the problem of violence; the course is set in the unique American perspective of Church-State relations.

T/RS 238 3 cr.
Nietzsche and Christianity
A focus on Nietzsche's relation to and critique of Western thought in general and Christian thought in particular. Nietzsche's deep influence on contemporary theology and philosophy will be shown through extended readings from his collected works.

T/RS 239 3 cr.
(P) Money and Power in the Biblical Tradition
(Formerly T/RS 328) A study of the presentation of various social-justice issues in the Old and New Testaments, including wealth and poverty as signs of God's favor, obligations to care for and protect the poor, and faith as involving both rights and responsibilities.

T/RS 240 3 cr.
(P) Scrolls and Scriptures
What are the Dead Sea Scrolls? Do they predict the future? Were they suppressed by the Vatican? Do they reveal secret information about Jesus? Conspiracy theories and tabloid headlines abound, but what do the scrolls really tell us? This course will look at the tabloids, the conspiracy theories and the scrolls themselves to understand better Judaism and early Christianity.

T/RS 296 3 cr.
(P,D) Life Along The Dead Sea
A three component travel course: (1) Participation in a one-week archaeological excavation at Ein Gedi, Israel; (2) A one-week tour of important biblical sites; and (3) a U of S-based series of lectures for background and context.

T/RS 310 3 cr.
(P) The Heart of the Old Testament
(Formerly T/RS 309) An in-depth look at the five books of Moses (Genesis, Exodus, Leviticus, Numbers and Deuteronomy) using ancient and modern exegetical views to examine and emphasize the central theme of the Covenant.

T/RS 311 3 cr.
Job and the Psalter
(Formerly T/RS 306) A close look at the wisdom literature of the Old Testament. The study of both the Book of Psalms and the Book of Job will emphasize theological themes.

T/RS 312 3 cr.
(P) The Great Prophets
(Formerly T/RS 308) An examination of the four major prophets of the Old Testament: Isaiah, Jeremiah, Ezekiel and Daniel, with an emphasis on the study of selected texts.

T/RS 313 3 cr.
(P,W) Faith and Justice in the Prophetic Tradition
(Formerly T/RS 208) The goals of contemporary Jesuit education are the service of faith and the promotion of justice. This course will examine the roots of these ideals in the writings of the OT prophets, with special attention to Isaiah.

T/RS 314 3 cr.
The Four Gospels
A study of the four Gospels from the perspectives of history, theology and literature.

T/RS 315 3 cr.
(P,W) John's Gospel and Letters
(Formerly T/RS 304) A close look at the Fourth Gospel and the Epistles of John with an emphasis on their literary, historical, and theological characteristics.

T/RS 316 3 cr.
Passion and Resurrection Narratives
(Formerly T/RS 307) A study of the theology of each of the Gospels by an analysis of the key narratives of the Passion and Resurrection in the four Gospels.

T/RS 317 3 cr.
(P) Pauline Letters
(Formerly T/RS 204) An introduction to the writings of the Apostle Paul, exploring Jewish and Greco-Roman influences on his letters as well as his contribution to basic Christian beliefs and practices.

T/RS 318 3 cr.
(P) The Apocalypse of St. John
(Formerly T/RS 305) This introduction to the last book of the Bible will emphasize the literary forms and thought patterns of apocalyptic literature as well as the historical and theological character of the book itself, highlighting both textual interpretation and contemporary relevance.

T/RS 319 3 cr.
(P,D,W) Judaism in the Time of Jesus
(Formerly T/RS 335) A study of first-century Jewish religious sects as well as the cultural, political, and historical setting of the Roman Empire in which Jesus lived and preached and where monotheism continued to develop.

T/RS 320 3 cr.
(P) Early Christian Writers
(Formerly T/RS 215) This course is designed to provide an introduction to the main figures, theological currents and ideas of the formative period of the history of Christian theology by a close reading of selected texts from the major authors of the first six centuries of the Church.

T/RS 321 3 cr.
(P) Development of Christian Thought to 1100
(Formerly T/RS 218) A survey of the principal theological, spiritual and institutional developments in the first millennium of the Church's life.

T/RS 322 3 cr.
(P) Development of Christian Thought 1100 to 1800
(Formerly T/RS 219) Survey of the principal theological, spiritual, and institutional developments in the Church in the medieval, reformation, and early modern periods.

T/RS 323 3 cr.
Protestant Traditions
(Formerly T/RS 228) This course will examine both historical and contemporary representatives of selected Protestant traditions, focusing on their characteristic understandings of (1) scripture, tradition and knowledge of God; (2) grace, faith and works; and (3) the Church and the Christian life.

T/RS 324 3 cr.
Jesuit Spirit
(Formerly T/RS 312) The Society of Jesus (Jesuits): its spirituality, tradition and history from their sixteenth-century origins in the Spiritual Exercises of St. Ignatius of Loyola through the contemporary period, with special emphasis on Jesuit theological and cultural contributions to the Church.

T/RS 325 3 cr.
(P,W) Heaven and Hell
(Formerly T/RS 223) Besides studying the origins of the Christian belief in the afterlife, the course will also focus on Catholic and Protestant formulations of the doctrines of salvation and damnation as well as literary responses to the notions of heaven and hell.

T/RS 326 3 cr.
Belief and Unbelief
(Formerly T/RS 327) A multidisciplinary inquiry into the nature of Faith in the Catholic tradition with special attention to the challenges of modernity.

T/RS 327 3 cr.
Spiritual Classics
(Formerly T/RS 324) A study of the autobiographies of St. Augustine and St. Teresa of Avila (*The Confessions* and *Life of Teresa of Jesus).* As an introduction to the study of the spiritual life, John Paul II's "Sign of Contradiction" is read.

T/RS 328 3 cr.
Models of the Church
(Formerly T/RS 318) A brief survey of various expressions of the Church's nature and mission throughout its history, from the New Testament through Vatican II. Exploration of some contemporary approaches, including liberation and feminist theology, and such questions as: What and who is the "true Church"? Where is it located? What is the place of Mary in the life of the Church?

T/RS 329 3 cr.
(P) Signs and Symbols
(Formerly T/RS 323) A study of the nature and purpose of symbols in the Church. Students will draw from the insights of contemporary symbol theorists as they piece together their own definition of "symbol." This definition will then be used to gain a new perspective on the Church's doctrine and sacraments as fundamentally symbolic realities.

T/RS 330 3 cr.
(P) Christ in Tradition and Culture
(Formerly T/RS 227) Examines the meaning and message of Jesus Christ as understood and communicated in the faith of his followers with special consideration given to the symbolic dimensions and cultural aspects of that Christian understanding.

T/RS 331 3 cr.
(P,W) God and the Earth
(Formerly T/RS 316) This course will explore the way human beings relate to the land and to other life forms and how this relationship is affected by belief in God. Biblical and other theological texts from Christianity and other religious traditions will be considered.

T/RS 332 3 cr.
Jesus and the Moral Life
(Formerly T/RS 338) A study of how the life of Jesus and the theological claims Christians make about his person relate to the moral life. Historical resources of the first century will be considered as well as contemporary writings in Christian ethics.

T/RS 333 3 cr.
(P) Friendship and the Christian Life
(Formerly T/RS 321) This course will explore friendship as a central practice of the Christian life, especially the moral and spiritual life, and examine virtues such as fidelity, forgiveness, and love which are essential for sustaining and nurturing friendships.

T/RS 334 3 cr.
(P,D,W) The Church and Contemporary Social Issues
(Formerly T/RS 326) Explores the religious and ethical dimensions of social issues such as prejudice and violence. The findings of related social sciences and literature are placed in the context of Christian anthropology to give the student a concrete view of their interrelationship.

T/RS 335 3 cr.
(P) Christian Ethics
(Formerly T/RS 331) This course will discuss the practice of the Christian moral life in contemporary society. The Christian virtues will be distinguished and related to selected problems arising in our lives as private individuals, as members of families, as professionals, and as citizens. Other topics to be treated include: evil, sin, Christian liberty, Christian perfection, relativism and humanism.

T/RS 336 3 cr.
(P,D,W) The Jewish Way of Life
(Formerly T/RS 333) As a global introduction to Judaism this course will examine: essential beliefs, holidays and life ceremonies, Jewish history and modern Judaism, especially the Holocaust, the State of Israel and the Coming to America.

T/RS 337 3 cr.
(P,D,W) Jewish Approaches to Ethics
A survey of Jewish approaches to ethics and ethical problems with comparisons to other religious traditions and the writings of secular ethicists. Students who take T/RS 334 may not take T/RS 337.

T/RS 338 3 cr.
(P,D,W) Psychology and Spirituality
(Formerly T/RS 439; prerequisite: PSYC 110) This course explores selected Christian and Buddhist traditions of spirituality as understood by their practitioners and from the perspective of representative theorists or schools of Western psychology. The course concludes by assessing positive and negative aspects of these psychological approaches to understanding and evaluating spiritual experience.

T/RS 339 3 cr.
Eastern Christian Spirituality
(Formerly T/RS 325) A study of the meaning of the spiritual life for Eastern Christian writers with a particular emphasis upon Sts. Athanasius, Gregory of Nyssa and Gregory Palamas. Themes such as prayer, image of and likeness with God, discernment of spirits, hesychasm and icons will be discussed.

T/RS 440 3 cr.
Introduction to Old Testament
(Formerly T/RS 400) An introduction to the primary methods and problems of Old Testament interpretation: its historical background, the theological analysis and synthesis of major

sections, as well as the use of source, form, and redaction criticism and such more recently developed approaches as social, scientific, literary, and feminist criticism.

T/RS 441 **3 cr.**
Inside the New Testament
An introduction to the primary methods and problems of New Testament interpretation focusing on the contents, historical background and theological import of major passages. Among the specific topics studied will be from and redaction criticism along with recent critical approaches to the text such as structuralist exegesis, narrative and feminist criticisms.

T/RS 445 **3 cr.**
Pastoral Theology
(Formerly T/RS 441) This course is based n the assumption that when done properly, all theology is pastoral. Throughout the course, students will "read" both the liturgy an classical theological texts in a pastoral way, as well as reflect theologically on their own pastoral experience. It will be conducted in seminar format.

T/RS 480 **1-3 cr.**
Internship
(Prerequisite: Junior standing, 15 credits of Theology/Religious Studies) Theology majors and minors can receive credits for a variety of ministerial experiences. Approval must be obtained beforehand from supervising faculty member and chairperson. Internship credits can be placed in the cognate or free area; they do not count toward the 30 credits needed for a Theology major or the 18 credits needed for a Theology minor.

T/RS 490 **3 cr.**
Theology Capstone Seminar
(Prerequisite: 12 credits of Theology/Religious Studies). A capstone seminar required for Theology majors, recommended for minors and available to other qualified students with permission of instructor. Topics will vary from semester to semester depending on student interest and faculty expertise. The use of primary sources and research appropriate to the specific topic will be emphasized. Students may take more than one semester of this course.

The Kania School of Management

The vision of The Kania School of Management is to prepare students to make lasting contributions to their organizations and communities.

Accreditation

The Kania School of Management is accredited by The Association to Advance Collegiate Schools of Business (AACSB International) on both the undergraduate and graduate levels.

Mission Statement

The Mission of The Kania School of Management is to contribute to a Jesuit, liberal arts education by preparing students to meet the educational requirements for success in leadership, management, team membership, and other productive roles in business and related fields, and to provide service to the broad University community. The Kania School of Management provides for the development of knowledge, skills, interpersonal and communication capabilities, attitudes and values that will enable students to assume positive, influential roles in their work organizations and society. This process integrates the foundation for lifelong learning and decision making with a clear sense of ethical responsibilities and a sensitivity to cultural and demographic diversity. Our mission supports the University's Statement of Mission – to provide professional and pre-professional programs "designed to meet the standard of the appropriate professional fields, and to develop students who have a clear sense of the ethical responsibilities which these fields demand of their successful practitioners."

Departmental Programs

Ten programs are available in the Kania School of Management: Accounting – Track in Financial Accounting, Accounting – Track in Managerial Accounting, Accounting Information Systems, Electronic Commerce, Enterprise Management Technology, Finance, International Business, Management, Marketing, and Operations Management. In addition, a B.S. in Economics is jointly offered with the College of Arts and Sciences. These programs prepare the student for a career in business or for graduate study. In addition to the requirements of the major and the business core, students in The Kania School of Management will complete the same general education core as students in the other undergraduate colleges. At least 50% of the major and business core credits must be earned at The University of Scranton. Apart from minor exceptions, which require the explicit approval of the dean of the school, the student will spend the senior year in residence at the University.The Kania School of Management is a member of the SAP University Alliance. This program enhances the value of the curriculum by placing the latest information technology in the classroom to give the next generation of business leaders a real-world advantage. The school has a fully operational SAP R/3 system for instructional use. Members of the faculty have been specifically trained by SAP America and are integrating Enterprise Resource Planning systems in appropriate classes.

Graduation Requirements

In order to graduate in a business major, in addition to the 2.00 minimum grade-point average (GPA) overall, the student must have earned a minimum 2.00 GPA in both the major and business core coursework.

Minors

A minor in General Business is available to non-business students with the exception of students majoring in Chemistry-Business, Electronics-Business and Economics (SOM only). It will consist of 21 credits:

ECO 101	Current Economic Issues
ACC 253	Financial Accounting
ECO 351	Environment of International Business
FIN 351	Introduction to Finance
MGT 351	Principles of Management
MKT 351	Introduction to Marketing
OIM 471	Business Information Management

The last five must be taken after the other courses, and may be taken no earlier than the junior year. Minors in Accounting, Accounting Information Systems, Economics, Electronic Commerce, Finance, Management of People and Teams, Management of Structures and Systems, and Operations Management are described under those respective programs.

Business Cognate

Non-Business students with special needs may pursue a personal cognate in Business, but may not take more than 25% of their total credit hours in Business. With the

approval of his or her advisor, the student is free to select a variable number of Business courses. However, the prerequisites stated in the catalog must be observed, and upper-division courses may not be taken before the junior year.

Math Options

Two math options are available to Business majors:

Option I* (6 credits)
MATH 107 (Quantitative Methods II)
MATH 108 (Quantitative Methods III)
Option II* (8 credits)
MATH 114 (Analysis I)
MATH 221 (Analysis II)

Both options cover the topics of calculus. Option I takes an applied approach; Option II a theoretical approach.

The Business Leadership Program

Robert L. McKeage, Ph.D., *Director*
See page 68.

ACCOUNTING

Faculty

Michael O. Mensah, Ph.D., *Chair*
Brian W. Carpenter, Ph.D.
Laura Helene Ellis-Westwell, Ph.D.
Ronald J. Grambo, Ph.D.
Roxanne T. Johnson, Ph.D.
Robyn Lawrence, Ph.D.
Daniel P. Mahoney, Ph.D.
Steven A. Solieri, Ph.D.
Joseph R. Zandarski, Ph.D.

Overview

Accounting plays a vital role in the business and investment decisions made by the management, owners and creditors of organizations. Because of this important role, accounting has become known as the "language of business." To fulfill the needs of students entering this discipline, the Accounting Department of The University of Scranton offers majors in two tracks: Financial Accounting and Managerial Accounting. In addition, a combined Bachelor of Science/Master of Business Administration Degree program is available for students interested in professional certification in states requiring 150 credit hours of education. The department's undergraduate degree program in Accounting Information Systems is described separately in this catalog.

Financial Accounting focuses on the needs of users outside of the organization, primarily investors and creditors. This accounting information facilitates the investment and credit decisions that are inherent in a market economy. The financial track is best suited for those students aspiring to become Certified Public Accountants (CPAs). While licensure of CPAs is separately governed by each state's legislative body, the Accounting Department provides students with opportunities to satisfy the education requirements of any state in which they may aspire to become certified. (Please refer to the combined B.S./M.B.A. degree program below.)

Managerial Accounting focuses on the information needs of users within the organization. This information aids in planning and controlling the organization's activities, and in evaluating the performance of the organization's segments and managers. The managerial accounting track is best suited for those students aspiring to become Certified Management Accountants (CMAs).

The success of our graduates is demonstrated by their job placements. Alumni are employed by Big Four, regional, and local public accounting firms, by many notable firms in private industry, as well as by governmental and not-for-profit organizations. Qualified students have opportunities for on-the-job training through our internship program.

Combined Bachelor of Science/ Master of Business Administration Degree Program

The Accounting Department of The University of Scranton offers interested and qualified students the opportunity to earn both a Bachelor of Science degree in accounting and a Master of Business Administration degree with an accounting specialization. While this program may benefit any student interested in the accounting discipline, the program was

** Students are tested for math placement during summer orientation. On the basis of these tests and their high school background it will be recommended that some students take Option II, especially if they expect to pursue graduate studies. The majority of students will be placed in Option I, and may also be required to take MATH 106: Quantitative Methods I as a prerequisite to taking MATH 107.*

developed in response to the adoption by most states of a 150-credit-hour educational requirement to become a Certified Public Accountant. With judicious course scheduling, most students can complete the program within five academic years.

Students interested in this BS/MBA degree program should apply to The Graduate School as prescribed by The Graduate School Catalog as early as December of their junior year at The University of Scranton. Criteria for acceptance into the combined program include the student's previous academic performance, GMAT score, letters of recommendation and statement of purpose. Students admitted into this combined BS/MBA degree program may elect to follow either the Financial Accounting track, the Managerial Accounting track, or the Accounting Information Systems major. Students must adhere to The Graduate School Catalog requirements.

Minor in Accounting

The Accounting minor provides students of any major with an understanding of the language of business, thus serving to expand their career possibilities. The minor also serves as an excellent foundation for students who might later pursue a graduate business degree or law degree. The minor consists of four required courses (ACC 251-252 or ACC 253-254, ACC 361 and ACC 363), plus two elective courses (any 300 or 400 level accounting courses). Therefore, business students (and other students who are required to take two semesters of sophomore-level accounting) can complete the minor by taking four additional accounting courses beyond the two accounting courses that are required of their major. Other students can complete the minor by taking no more than six accounting courses. Interested students should contact their advisors in the KSOM Advising Center.

Course Descriptions

ACC 210 3 cr.
Survey of Managerial and Financial Accounting
(Not open to students needing 6 credits in introductory accounting) A foundation course for Acc 502. Topics covered include recording transactions, adjusting and closing entries, and preparing financial statements; the form and content of each financial statement; and the principles underlying accounting treatment of economic events. Managerial accounting terminology, concepts and cost classification; the cost of goods manufactured and sold statement; and the budgeting process are also covered.

ACC 251 3 cr.
Financial Accounting I
(For accounting, AIS, EMT and finance majors) A survey of accounting principles, concepts and procedures. Topics covered include financial statements, the information-processing cycle, cash, receivables, inventory costing methods, plant and equipment, intangibles, and current liabilities.

ACC 252 3 cr.
Financial Accounting II
(Continuation of ACC 251 for accounting, AIS, EMT and finance majors; prerequisite: ACC 251) A study of long-term liabilities, owners' equity of corporations and partnerships, the cash-flow statement, and cost analysis and accumulation.

ACC 253 3 cr.
Financial Accounting
(For non-accounting, non-AIS, non-EMT and non-finance majors) A survey of the accounting cycle, basic financial statements, theory and techniques of income, asset, and liability recognition.

ACC 254 3 cr.
Managerial Accounting
(Continuation of ACC 253 for non-accounting, non-AIS, non-EMT and non-finance majors; prerequisite: ACC 253) This course examines accounting information primarily from the perspective of a user within the organization. Topics covered include cost allocation, product costing, budgeting, profit planning, and performance evaluation.

ACC 361 3 cr.
Intermediate Accounting I
(Prerequisite: junior standing, ACC 252) A comprehensive study of contemporary accounting theory, concepts and procedures and their application to the asset classifications on the balance sheet. Current pronouncements of the various accounting organizations relevant to assets will be emphasized.

ACC 362 3 cr.
Intermediate Accounting II
(Prerequisite: ACC 361) Application of contemporary accounting theory to liabilities and stockholder's equity classifications of the balance sheet. Current pronouncements of accounting organizations relevant to liabilities and owners' equity accounts will be emphasized.

Accounting – Financial Accounting Track Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar/Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 251–252	Financial Accounting I–II	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	ACC 361–362	Intermediate Accounting I–II	3	3
MAJOR	ACC 363–364	Federal Taxes–Auditing	3	3
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	FIN 351–MKT 351	Intro. to Finance–Intro. to Marketing	3	3
BUS CORE	OIM 351–OIM 352	Intro. to Mgt. Science–Intro. to Oper Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Intl Business		3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
			18	18
Fourth Year				
MAJOR	ACC 460–ELECT[4]	Adv. Accounting–Major Elective	3	3
MAJOR	ACC 461–ELECT[4]	Cost Accounting–Major Elective	3	3
BUS CORE	OIM 471–MGT 455	Bus. Info. Mgt.–Bus. Policy & Strategy	3	3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT[2]	Free Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	13

TOTAL: 133-135 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *Major electives for the Financial Accounting track are ACC 365, 470, 472, 473, 474, 475 and 480. Students who plan to sit for the CPA examination in New York or New Jersey need 6 credits of finance and 6 credits of law. For the additional course in finance, one of FIN 361, FIN 362, or FIN 475 is recommended. ACC 470 is recommended for the additional law course.*

ACC 363 **3 cr.**
Federal Taxes
(Prerequisites: junior standing, ACC 252 or 254) An introductory course covering pertinent phases of federal income taxation. Emphasis on business transactions, preparation of individual returns, and finding the answers to federal tax questions.

ACC 364 **3 cr.**
Auditing Theory
(Prerequisite: ACC 361) Regulatory, legal, ethical, and technical issues related to the independent audit service. Examination of auditing standards, statistical methods and techniques involved in the examination of certain transaction cycles.

ACC 365 **3 cr.**
Federal Taxation of Corporations and Partnerships
(Prerequisite: ACC 252) An introduction to the taxation of C and S corporations and partnerships, including analysis of the tax consequences of their formation, operation, and liquidation.

Accounting – Managerial Accounting Track Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 251–252	Financial Accounting I–II	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	ACC 361–362	Intermediate Accounting I–II	3	3
MAJOR	ACC 461–365	Cost Acctg.–Federal Tax of Corp.	3	3
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	FIN 351–MKT 351	Intro to Finance–Intro. to Marketing	3	3
BUS CORE	OIM 351–OIM 352	Intro. to Mgt. Science–Intro. to Oper. Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Intl. Business		3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
			18	18
Fourth Year				
MAJOR	ACC 462–ELECT[4]	Adv. Mgrl. Accounting–Major Elective	3	3
MAJOR	ACC ELECTIVES[4]	Major Electives	3	3
BUS CORE	OIM 471–MGT 455	Bus. Info. Mgt.–Bus. Policy & Strategy	3	3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT[2]	Free Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	13

TOTAL: 133-135 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC. 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *The major electives for the Managerial Accounting track are ACC 363, 460, 470, 471, 472, 474, 475 and 480.*

ACC 370 **3 cr.**
Fraud Detection and Control
(Prerequisite: ACC 252, 254, or 210) This course provides the student with an understanding of the various forms of fraud that take place within and outside of the organization. The student is exposed to the control and investigative techniques essential to the prevention and detection of these frauds.

ACC 460 **3 cr.**
Advanced Accounting I
(Prerequisite: ACC 362) The theories and promulgated standards of accounting related to multiple business units, including accounting for business combinations, consolidated financial statements, minority interest, and branch accounting. Also covered is governmental and nonprofit accounting.

ACC 461 **3 cr.**
Cost Accounting
(Prerequisites: junior standing, ACC 252) Theories, techniques and procedures in cost accumulation, reporting and control, including such topics as job-order costs, process costs, by-products and joint-products costing, and standard cost and variance analysis.

ACC 462 3 cr.
Advanced Managerial Accounting
(Prerequisite: ACC 461) Accounting techniques as control devices in business with emphasis on the use of accounting data in business decisions. Topics to include budgeting and profit planning, cost-volume-profit analysis and direct costing.

ACC 470 3 cr.
Law for Accountants
(Prerequisite: MGT 251) A study of the law of contracts, sales, commercial paper, secured transactions, rights of debtors and creditors, and bankruptcy.

ACC 471 3 cr.
Management Auditing
(Prerequisite: ACC 362) An in-depth examination of the accountant in the manager's position. Includes administrative effectiveness and efficiency as provided through sound internal controls, and design and implementation of monitoring systems within the organization to promote better cost-benefit decisions.

ACC 472 3 cr.
Advanced Accounting II
(Prerequisite: ACC 362) A study of the theories and promulgated standards of accounting related to international operations, partnerships, estates and trusts, installment sales, consignments, SEC reporting, and interim financial reporting.

ACC 473 3 cr.
Advanced Auditing
(Prerequisite: ACC 364) An examination of statistical analysis in making audit judgements; internal control and auditing issues relating to EDP systems; risk assessment and testing for certain transaction cycles; and other attestation services and reports.

ACC 474 3 cr.
Accounting Information Systems
(Prerequisite: ACC 252) The design and application of accounting systems in both the manual and automated environments. Analysis of information's accumulation and use patterns in organizations with a focus on providing useful and timely information. Extensive computer usage of Professional Business Software.

ACC/IB 475 3 cr.
International Accounting
(Prerequisites: ACC 252 or 254, ECO 351) This course is designed for both accounting and non-accounting majors with an interest in global accounting issues. The environmental influences on accounting development, the reporting standards for selected countries, financial statement analysis, and taxation and managerial accounting issues for multi-national business entities are examined.

ACCOUNTING INFORMATION SYSTEMS

Michael O. Mensah, Ph.D., *Chair, Accounting Department*
See Accounting for faculty listing.

Overview

The explosion of electronic commerce, the use of enterprise systems, the growth of global alliances and information sharing, and other information technology-driven developments have expanded the variety of opportunities available to professionals with a strong and integrated knowledge of accounting principles (the "language of business") and the evolving information technologies needed to implement and manage accounting information systems (AIS). AIS professionals provide value to their organizations or clients by using their skills to help generate reliable, timely, and relevant decision-making information for the use of managers and other stakeholders. These professionals assist their organizations or clients in assessing the opportunities and risks associated with specific information technology deployments. They also oversee the implementation and management of accounting systems within their organizations. In the assurance sector, AIS professionals often function as information systems auditors. They provide accounting, technology, and other skills to support traditional as well as paperless audits. They are often called upon to assist in special investigations such as fraud audits and forensic accounting.

The objective of the AIS major is to prepare students to function in the corporate, public accounting, and non-profit sectors as entry-level accounting systems professionals. Students can select electives for either an accounting information systems auditing or a general information systems management emphasis. AIS majors are encouraged to pursue professional certifications such as the Certified Information Systems Security Profes-

sional (CISSP), the Certified Information Systems Auditor (CISA), and the Certified Internal Auditor (CIA). In addition, students may also plan to become Certified Public Accountants (CPA) or Certified Fraud Examiners (CFE). The AIS major is a four-year undergraduate program. However, students may use the combined BS/MBA program at the University to meet the 150 hour requirement for CPA certification as needed. Qualified students have opportunities for on-the-job training through our internship program.

Minor in Accounting Information Systems

The Accounting Information Systems minor provides students of any major with an understanding of basic accounting and an opportunity to acquire related information technology knowledge and skills. The minor serves to expand students' career opportunities in areas such as accounting, business, government, non-profit management and law enforcement. The minor consists of 18 credits: ACC 251 and 252, ACC 474, ACC 253 and 254, AIS 372, and two additional 300- or 400-level AIS courses. Therefore, business students (and other students who are required to take two semesters of sophomore-level accounting courses) can complete the minor by taking four additional Accounting/AIS courses.

Course Descriptions

AIS 362 3 cr.
Database Management Systems for Electronic Business
(Prerequisite: ACC 474) This course deals with the use of database management systems to support electronic business. Topics include: data modeling; database design and normalization; structured query language (SQL); database application development ; integration of Web server and database server; distributed databases; data warehousing; and data mining. (EC 362 and AIS 362 are offered jointly.)

AIS 367 3 cr.
Enterprise Accounting and Control
(Prerequisites: ACC 252 or ACC 254, junior standing) This course examines how accounting principles, methods, and techniques are harnessed to meet the reporting needs of an organization in an integrated management and information technology environment. It is designed to demonstrate the integration of both financial and managerial accounting procedures with the core business processes and organizational elements of an enterprise. (AIS 367 and EMT 367 are offered jointly.)

AIS 372 3 cr.
Accounting for Electronic Business
(Prerequisites: ACC 252 or ACC 254, junior standing) This course will introduce students to the role of accounting in today's global business environment. Students will examine how technology has impacted the techniques of accounting and reporting. Computerized models of accounting will be used to explore the tools available to compile data for management decision and reporting. Both Internet business and traditional business transactions will be evaluated. (AIS 372 and EC 372 are offered jointly.)

AIS 373 3 cr.
Object Oriented Applications in Business and Accounting
(Prerequisite: ACC 474) This course is an introduction to the design and analysis of computer systems utilizing an object-oriented approach. Topics include: major methodologies, methods and techniques for analysis and design, concepts and techniques for development projects, CASE tool support development work, and approaches to planning for systems implementation, evaluation, and maintenance.

AIS 381 3 cr.
Electronic Business Information Systems Security and Ethics
(Prerequisite: AIS 362) This course is designed to provide students with an understanding of the technical, managerial, legal and ethical issues of information security. Topics include: Web server and client security; secure transactions and payments; information security; digital certificates and practices; legal, moral and ethical issues; intellectual property and patents; governmental regulations and policies; and emerging technologies. (AIS 381 and EC 471 are offered jointly.)

AIS 473 3 cr.
Advanced Auditing Issues: Information Systems Auditing
(Prerequisites: ACC 364 and ACC 474) The objective of this course is to develop competence in information systems auditing (the audit and control of computer-based information systems) by focusing on the design and implementation of audit approaches in automated settings. Topics include: information systems (IS) audits, IS controls, risk assessment, and computer-assisted audit techniques (CAATS).

Accounting Information Systems Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 251–252	Financial Accounting I–II	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	ACC 361–362	Intermediate Accounting I–II	3	3
MAJOR	ACC 364	Auditing		3
MAJOR	AIS 362	Database Management Systems for Electronic Business		3
BUS CORE	ACC 474	Accounting Information Systems	3	
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	FIN 351–MKT 351	Intro. to Finance–Intro. to Marketing	3	3
BUS CORE	OIM 351–OIM 352	Intro to Mgt. Science–Intro to Oper. Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of International Business	3	
			18	18
Fourth Year				
MAJOR	AIS 373	Object Oriented Applications in Bus. & Acctg.	3	
MAJOR	AIS 372	Accounting for Electronic Business	3	
MAJOR	AIS 483	Business Applications of Communication Networks		3
MAJOR	AIS ELECT[4]	AIS Electives	3	3
BUS CORE	MGT 455	Business Policy & Strategy		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE ELECT	ELECT[2]	Free Elective	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 136-138 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *Recommended audit electives include AIS 473 or ACC 473, AIS 381 and AIS 367. General systems electives include AIS 367, ACC 461, ACC 460, ACC 470 and ACC 363.*

ACC 474 3 cr.
Accounting Information Systems
(Prerequisite: ACC 252) The design and application of accounting systems in both the manual and automated environments. Analysis of information's accumulation and use patterns in organizations with a focus on providing useful and timely information. Extensive computer usage of Professional Business Software.

AIS 483 3 cr.
Business Applications of Communication Networks
(Prerequisite: ACC 474) Use of computer and telecommunication networks to achieve organizational goals. Topics include data communications; planning and design of communication networks; data integrity, independence and security, client-server computing; global communication; the Internet; applications of telecommunication networks and current issues and future trends. (AIS 473, EC 473, and OIM 473 are offered jointly.)

ECONOMICS

Faculty

Satyajit Ghosh, Ph.D., *Chair*
Frank P. Corcione, Ph.D.
Riaz Hussain, Ph.D.
Ioannis N. Kallianiotis, Ph.D.
Hong V. Nguyen, Ph.D.
Iordanis Petsas, Ph.D.
Murli Rajan, Ph.D.
Edward M. Scahill, Ph.D.
Susan Trussler, Ph.D.

Overview

The major in Economics, which is available both through The Kania School of Management and The College of Arts and Sciences, provides an excellent training for understanding the economic events and developments of our complex industrialized society and of the world economies. It equips the student with training and background needed to assume responsible decision-making positions in the financial sector, industry, commerce, banking, or government service. It also gives a strong preparation for the pursuit of graduate studies in Economics or the law.

Minor in Economics

18 credits consisting of ECO 153, 154 (or ECO 101,102), 361, 362, plus two upper level ECO courses (SOM majors may not use ECO 351).

Course Descriptions

ECO 101 3 cr.
(S) Current Economic Issues
Intended to provide a foundation in economics for non-business students. This course provides analysis of contemporary economic issues relevant to the U.S. economy and the world. Issues such as economic policy, budget deficit, federal debt, recession, inflation, health care, environment, and regulation of business are studied. Not a substitute for ECO 153-154 or other upper-level economics courses.

ECO 103 3 cr.
(S) The Economics of Environmental Issues
This course provides students with a framework for viewing environmental issues as economic issues. Alternative methods for addressing environmental problems are examined, including "command and control" regulatory policies and "market-based" policies. The evolution of public policies toward the environment is discussed. Not open to Economics or Business majors or minors.

ECO 153 3 cr.
(S) Principles of Microeconomics
This course centers on the salient characteristics of the modern free-enterprise economy. Topics include the operations of the price system as it regulates production, distribution, and consumption, and as it is in turn modified and influenced by private groups and government.

ECO 154 3 cr.
(S) Principles of Macroeconomics
This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the composition and fluctuations of national income, and inflation, all as influenced by monetary and fiscal policy.

ECO/IB 351 3 cr.
(D) Environment of International Business
(Prerequisites: ECO 153-154 or ECO 101, junior standing) This course introduces the student to the growing field of international business, touching on the economic, social and political environments of international trade and multi-

Economics Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR (GE S/BH)	ECO 153–154	Principles of Micro–Macro Economics	3	3
GE WRTG–SPCH	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
MAJOR	ECO 361–362	Intermediate Micro–Macro Econ.	3	3
MAJOR	STAT 253	Statistics for Economics		3
COGNATE[4]	ACC 253	Financial Accounting	3	
COGNATE[4]	ELECT	Cognate Elective		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humn. Electives (HIST 110–111 recom.)	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	ECO/IB 351–ECO/IB 375	Env. of Intl. Bus.–Int'l Economics	6	
MAJOR	ECO 363	Applied Econometrics		3
MAJOR	ECO ELECT	Eco Elective	3	
COGNATE[4]	FIN 351–ELECT	Intro. to Fin.–Cognate Electives	3	6
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE ELECT	ELECT	Free Elective		3
COGNATE[4]	ELECT	Cognate Elective	3	
			15	15
Fourth Year				
MAJOR	ECO 460	Monetary & Fin. Eco.	3	
MAJOR	ECO SEM–ECO 471	Eco. Seminar–Advanced Macro.	3	3
COGNATE[4]	ELECT	Cognate Electives	3	3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT	Free Electives	6	6
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 130-132 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *Economics majors may apply up to 6 cognate credits toward a math minor. Students taking the sequence open to math majors are strongly urged to complete the calculus sequence by taking MATH 222, particularly if they plan on pursuing graduate studies. Economics majors registered in The Kania School of Management will apply 9 of their elective cognate credits to one of the following areas (exceptions require the permission of the SOM dean): accounting, finance, international business, management, marketing, operations management. The remaining cognate credits may be applied to the social sciences or from the other business areas (but note that no more than 30 credits altogether can be taken in business subjects, exclusive of economic courses). Care must be taken to observe prerequisites.*

national corporations. International institutions and agencies that impact on international business are discussed and practical aspects of these topics are emphasized.

ECO 361 3 cr.
Intermediate Microeconomics
(Prerequisite: ECO 153) This course centers on the analysis of production and cost theories. The topics studied are pure competition, monopoly, oligopoly, monopolistic competition and factor pricing. Economics majors take in sophomore year; Finance majors in the junior year.

ECO 362 3 cr.
Intermediate Macroeconomics
(Prerequisite: ECO 154) Course centers on the study of national income accounting, price level

fluctuations, issues of unemployment, inflation, full employment, and impact of monetary and fiscal policy on income level and distribution. Economics majors take in sophomore year; Finance in junior year.

ECO 363 **3 cr.**
Applied Econometrics
(Prerequisites: ECO 361, ECO 362, STAT 253) This course deals with the modeling and estimation of relationships as applied to economics. The topics covered include single-equation structural modeling and time-series modeling; estimation methods and problems; testing of economic hypotheses; and forecasting. The emphasis of the course is on applications involving the use of actual data.

ECO 364 **3 cr.**
Labor Economics and Labor Regulations
(Prerequisites: ECO 153-154) Analysis of labor supply and demand; measurement and theory of unemployment; occupational choice; wage differentials; labor-market issues and policies; labor legislation.

ECO 365 **3 cr.**
Mathematical Economics
(Prerequisites: ECO 361, ECO 362, STAT 253, MATH 107, MATH 108 or permission of the instructor) This course studies the methodology of modern economic analysis. Emphasis is placed on developing the rigorous theoretical foundations of micro and macroeconomics using tools of calculus and linear algebra. Topics such as comparative static analysis, general -equilibrium analysis, consumer and firm behavior, intertemporal decision making, decision-making under uncertainty, theory of growth and rational-expectation hypothesis are covered.

ECO 366 **3 cr.**
Economic Geography
(Prerequisites: ECO 153-154) This course examines the broad areas of the spatial organization of economic systems and the location of economic activity; the role of transportation in determining optimal locations and optimal flow of goods, information, and people; and spatial organization of the growth and development of cities, regions and nations.

ECO/IB 375 **3 cr.**
International Economics
(Prerequisites: ECO 153-154 or ECO 351 or permission of the instructor) This course explains the rationale for international trade and gains from trade and discusses various trade policies. Topics covered in the course include: comparative advantage, free trade and trade restrictions (tariffs, quotas, etc.), the trade policy of the United States, exchange rates and their determinants, balance-of-payments analysis and the significance of multinational corporations.

ECO 410 **3 cr.**
Economics for K-12 Teachers
Provides an introduction to fundamental economic concepts as well as a review of techniques and materials (print, audiovisual, etc.) that can be used to teach economics at the K-12 grade levels. Emphasis is placed on strategies designed to integrate economics into such courses as language arts, mathematics and social studies. Not a substitute for other economics courses.

ECO 460 **3 cr.**
Monetary and Financial Economics
(Prerequisite: ECO 362, FIN 351) This course emphasizes the interrelations between financial markets, financial institutions and aggregate economic activity. Topics include: an overview of financial institutions, introduction to money and capital markets, fundamentals of interest rates, the money supply process, the conduct of monetary policy, and other topics that occupy the subject matter of money and financial markets.

ECO 461 **3 cr.**
Managerial Economics
(Prerequisite: ECO 361) Teaches the use of economic tools for managerial decision making. Topics include discussion of applicable economic, statistical and computer skills. Emphasis is on the microeconomic theory of the firm and how this is applied.

ECO 465 **3 cr.**
Development Economics
(Prerequisites: ECO 153-154) This course introduces students to contemporary development economics. Topics include: the concept and measurement of economic development, the problems and prospects of the less developed countries, and the alternative theories and processes of economic development.

ECO 470 **3 cr.**
Law and Economics
Prerequisite: ECO 361 or permission of the instructor) This course focuses on the public-policy implications of law and economics. It is based on the notion that legal rules establish implicit prices for different types of behavior and that consequences of these rules can be analyzed using microeconomics. In particular, micro-

economic theory is used to analyze economic aspects of property, contracts, torts, and crime.

ECO 471 **3 cr.**
Advanced Macroeconomics
(Prerequisites: ECO 362, 460, 363 or permission of the instructor) This course centers on the study of recent advances in macroeconomic analysis. Topics include empirical macroeconomic analysis, open- economy macroeconomics, the role of expectations, economic policy and economic growth.

ECO 490 **3 cr.**
Economics Seminar
Advanced study of a special area in economics. Topics and prerequisites vary.

The following courses are offered infrequently:

ECO 102	Fundamentals of Economic Analysis
ECO 200	(S) Economic Security and Personal Finance
ECO 461	Managerial Economics
ECO 462	Urban and Regional Economics
ECO 463	Public Finance and Taxation
ECO 464	Environmental Economics and Policy

Please contact the department chair for course schedules and detailed descriptions.

ELECTRONIC COMMERCE

Prasadaro Kakumanu, Ph.D., *Chair, Operations and Information Management Department*
See Operations and Information Management for faculty listing.

Overview

Electronic commerce is an emerging business environment that provides common business services, multimedia content publishing and secure interactive web sites by integrating back-end and front-end applications. The necessary electronic commerce infrastructure is provided by integrating information and telecommunication technologies, the Internet and the World Wide Web, and business models that incorporate security, privacy, and legal issues. Electronic commerce lets companies reach new markets, operate around the clock, shorten the product-development cycle, enhance customer service, reduce or eliminate inventory related costs, and create enterprise links – all at lower costs. The phenomenal growth in online commerce increases the demand for people with skills in areas such as electronic commerce infrastructure, new business initiatives, law and security, electronic payment, financial services, and interactive marketing. The program below develops the knowledge and skills necessary for linked organizations in the new millennium.

Minor in Electronic Commerce

To minor in Electronic Commerce the student must take a minimum of 18 credits. Three courses are required: C/IL 104 (or equivalent), EC 251, and OIM 471 and any three of the following: EC 361, EC 362, EC 370, EC 371, EC 372, EC 461, EC 462, EC 470, EC 471, or EC 473.

Course Descriptions

EC 251 **3 cr.**
Introduction to Electronic Business
(Prerequisite: C/IL 104) This course explores how the Internet has revolutionized the buying and selling of goods and services in the marketplace. Topics include: Internet business models, electronic commerce infrastructure, designing online storefronts, payment acceptance and security issues, and the legal and ethical challenges of electronic commerce. Students will also gain hands-on experience in creating a web site using an HTML authoring tool.

EC 361 **3 cr.**
Electronic Business Communication Networks
(Prerequisite: EC 251) The course is designed to provide students with networking and telecommunications fundamentals necessary to develop enterprise networks to conduct business on the Internet. Topics include: network fundamentals and technologies, wireless networks and the Internet, network security, management, and trends. Discussion is focused on business applications within and among organizations. Hands-on experience and case studies will be used to illustrate concepts.

EC 362 **3 cr.**
Database Management Systems for Electronic Business
(Prerequisites: EC 251, OIM 471) This course deals with the use of database management systems to support electronic business. Topics

include: data modeling; database design and normalization; structured query language (SQL); database application development; integration of web server and database server; distributed databases; data warehousing; and data mining. (EC 362 and AIS 362 are offered jointly.)

EC 370 **3 cr.**
Interactive Marketing
(Prerequisites: MKT 351, junior standing) This course examines the integration of evolving interactive technologies in the design and implementation of marketing programs. The use of information technology infrastructure to support the execution of conception, pricing, promotion and distribution of ideas, goods and services has the potential of making the marketing process more efficient and productive. (EC 370 and MKT 370 are offered jointly.)

EC 371 **3 cr.**
Investments
(Prerequisites: FIN 351, junior standing) This course provides students with an overview of the fundamentals of investing. Topic coverage will include debt, equity and derivatives markets. Internet resources will be used to develop security valuation models.

EC 372 **3 cr.**
Accounting for Electronic Business
(Prerequisites: ACC 252 or ACC 254, junior standing) Introduces students to the role accounting is playing in today's business environment and how technology has impacted the techniques of accounting and reporting. Computerized models of accounting are used to explore the software tools available for decisions and reporting. Internet business and traditional business transactions will be evaluated. Students will see the effects of control features built into software systems. (EC 372 and AIS 372 are offered jointly.)

EC 461 **3 cr.**
Internet Applications Development
(Prerequisites: EC 361, EC 362) An introduction to existing and evolving Internet technologies needed for web site development and management. Client and server-side scripts will be utilized to explore their role in interacting with customers, customizing web pages, processing forms, maintaining state, and connecting to databases. Course delivery will be primarily conducted through hands-on assignments and projects.

EC 462 **3 cr.**
Projects in Electronic Business
(Prerequisite: EC 461) In this course, students will integrate their knowledge and skill in business and technology to acquire the big picture of electronic business. The purpose of this course is to synthesize knowledge acquired in different courses to develop a secure working electronic commerce site. Students will work in a team-oriented environment under the guidance of the instructor.

EC 470 **3 cr.**
Supply Chain Management
(Prerequisite: OIM 352 or permission of instructor) Many companies view Supply Chain Management as the core of their business strategy. Student will learn how principles of Supply Chain Management integrate into the management of the enterprise and the business processes. Students will examine the use of information technologies in Supply Chain Management. Computer software will be used to gain hands-on experience. (EC 470 and OIM 366 are jointly offered.)

EC 471 **3 cr.**
Information Systems Security
(Prerequisites: EC 361, EC 362) The course provides students with a basic understanding of the technical, managerial, legal and ethical issues of information security. Topics include cryptographic systems, IP concepts and behavior, Internet and systems threat assessment, secure transactions and payments, antivirus tools, password management and cracking, and system auditing. Students will largely utilize Microsoft Windows platforms, but other operating systems will be discussed. (EC 471 and AIS 381 are offered jointly.)

EC 472 **3 cr.**
Electronic Business and Entrepreneurship
(Prerequisites: EC 361, EC 362) The course examines the issues related to the starting of new technology-based businesses. It focuses on entrepreneurial traits, idea generation, entry strategies, marketing plans and development of business plans. Venture capital and other forms of financing will also be covered. In addition there will be a discussion on legal and intellectual properties issues. (EC 472 and OIM 472 are offered jointly.)

Electronic Commerce Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computer and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 253–254	Financial–Managerial Accounting	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
MAJOR	EC 251	Introduction to Electronic Commerce	3	
BUS CORE	OIM 471	Business Information Management		3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	EC 361	Electronic Business Comm. Networks	3	
MAJOR	EC 362	Database Mgt. for Electronic Business		3
MAJOR	EC ELECT	EC Electives	3	3
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	MKT 351–FIN 351	Intro to Marketing–Intro to Finance	3	3
BUS CORE	OIM 351–OIM 352	Intro to Mgt. Science–Intro to Oper. Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Intl. Business	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
			18	18
Fourth Year				
MAJOR	EC 461	Internet Applications Development	3	
MAJOR	EC 462/ELECT	Projects in Electronic Business/Elect		6
BUS CORE	MGT 455	Business Policy & Strategy	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE ELECT	ELECT	Free Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	13

TOTAL: 133-135 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. The GE free elective in the fourth year must be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

EC 473 3 cr.
Business Applications of Communication Networks
(Prerequisite: OIM 471) Use of computer and telecommunication networks to achieve organizational goals. Topics include data communications; planning and design of communication networks; data integrity, independence and security; client-server computing; global communication; the Internet; applications of telecommunication networks and current issues and future trends. (EC 473, AIS 483, and OIM 473 are offered jointly.)

ENTERPRISE MANAGEMENT TECHNOLOGY

Satya N. Prattipati, Ph.D., *Program Director*
See Operations and Information Management for faculty listing.

Overview

The major in Enterprise Management Technology (EMT) is a general management program with emphasis on information technology. The program's focus is on the integrated management of the whole enterprise rather than the management of individual functional areas. It is designed to produce graduates with expertise in integrated business processes and the use of Enterprise Management Planning systems popularly known as ERP systems. This program is enabled by a fully functional SAP R/3 system provided through The Kania School's alliance with SAP America. EMT courses build upon the foundation provided by core courses in all business areas. These courses are followed by more advanced courses in each functional area which use ERP systems to manage and integrate the processes. Project-oriented courses, including business consulting, complete the program. The EMT major is a good choice for individuals desiring careers in information systems consulting or general management with an Information Technology emphasis. It is also an excellent preparation for graduate studies in business.

Course Descriptions

EMT 351 **3 cr.**
Business Process Overview
This is the first course in the area of Enterprise Management. Students will learn to appreciate the integration of a company's core business processes. Students will be exposed to the main business processes that drive an organization, the interactions within and between them, and the effect of integration on the decision-making environment. This course uses an enterprise-wide integrated information-systems software and simulated data for a model company. (EMT 351 and OIM 353 are offered jointly.)

EMT 367 **3 cr.**
Enterprise Accounting and Control
(Prerequisites: Acc 251-252 or Acc 253-254) This course examines how accounting principles, methods, and techniques are harnessed to meet the reporting needs of an organization in an integrated management-and-information-technology environment. It is designed to demonstrate the integration of both financial and managerial accounting procedures with the core business processes and organizational elements of an enterprise. (EMT 367 and AIS 367 are offered jointly.)

EMT 460 **3 cr.**
Customer Support Systems
(Prerequisites: EMT 351, MKT 351) An interdisciplinary approach to enterprise management that focuses on the customer is emphasized. The objective of the course is to orient enterprise-wide decision making to successful customer-relationship management on an ongoing basis. (EMT 460 and MKT 460 are offered jointly.)

EMT 461 **3 cr.**
Enterprise Treasury Management
(Prerequisites: EMT 351, FIN 351) This course is designed to provide advanced study in the financial-management area through detailed analysis of financial statements, liquidity crises, cash optimization, credit analysis, banking arrangements, loan contracts, commercial paper and the use of money market. (EMT 461 and FIN 361 are offered jointly.)

EMT 462 **3 cr.**
Production Planning and Control
(Prerequisites: EMT 351, OIM 352) This course concerns the study of production planning and control activities in an enterprise resource-planning context. Topics include: aggregate planning, capacity planning, master production scheduling, material requirements planning, production- activity control, purchasing, inventory models, and Just-in-Time systems. Interactions between operations and the other functional areas of the business will be demonstrated using Enterprise Management Systems software.

EMT 463 **3 cr.**
Enterprise HR Systems
(Prerequisites: EMT 351, MGT 351) This course explains the functions of a human resources division or department including: job descriptions, labor demographics, recruitment and hiring, turnover and mobility, interviewing, aptitude and other employee testing, performance evaluation, disciplinary procedures, employee health and safety, wage and

Enterprise Management Technology Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE T/RS–PHIL	T/RS 121–PHIL 120	Theology I–Intro Philosophy I	3	3
GE C/IL	C/IL 104	Computer and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM/PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 251–252	Financial Accounting I–II	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	EMT 351	Business Process Overview	3	
MAJOR	EMT 367	Enterprise Accounting and Control		3
BUS CORE	FIN 351	Introduction to Finance	3	
BUS CORE	MKT 351	Introduction to Marketing	3	
BUS CORE	OIM 352	Introduction to Operations Management		3
BUS CORE	OIM 351	Intro to Management Science	3	
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	ECO/IB 351	Environment of Intl. Business		3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE HUMN	HUMN ELECT	Humanities Elective		3
			15	18
Fourth Year				
MAJOR	EMT 460	Customer Support Systems	3	
MAJOR	EMT 461	Enterprise Treasury Management		3
MAJOR	EMT 462	Production Planning and Control	3	
MAJOR	EMT 463	Enterprise HR Systems		3
MAJOR	EMT 470	Enterprise Information Systems	3	
MAJOR	EMT 471	Configuration and Consulting		3
BUS CORE	MGT 455	Business Policy and Strategy		3
BUS CORE	OIM 471	Business Information Management	3	
GE ELECT	ELECT	Free Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 133-135 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. The GE free elective in the fourth year must be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

hour administration, government regulations; and the handling of absenteeism, alcoholism and drug addiction. (EMT 463 and MGT 361 are offered jointly.)

EMT 470 3 cr.
Enterprise Information Systems
(Prerequisite: EMT 351) This course is concerned with the management and operations of information systems in an integrated enterprise. It will examine the integrated business processes of an enterprise. Students will analyze and study enterprise systems software in detail. Students will be exposed to the management of the enterprise systems software. They will learn about business integration through the concepts of business engineering and business workflow.

EMT 471 3 cr.
Configuration and Consulting
(Prerequisite: EMT 351) Focus is on the implementation of enterprise systems projects and the role of consultants in such implementation. It examines the integrated business processes of an enterprise, and the concepts of developing data models, business objects, and event-process chains. Students develop implementation plans for enterprise systems software. The course will also discuss the configuration procedures in implementing enterprise systems software. The goal of the course is to prepare the students to become consultants in enterprise systems.

FINANCE

Faculty

Satyajit Ghosh, Ph.D., *Chair*
Frank P. Corcione, Ph.D.
Riaz Hussain, Ph.D.
Ioannis N. Kallianiotis, Ph.D.
Hong V. Nguyen, Ph.D.
Iordanis Petsas, Ph.D.
Murli Rajan, Ph.D.
Edward M. Scahill, Ph.D.
Susan Trussler, Ph.D.

Overview

The practitioner in finance must be familiar with the tools and techniques available and, given the resources and constraints of organizations and the general economic environment in which the organization operates, be adept at efficiently managing the fiscal resources of the organization, including the raising of funds and their short-term and long-term investment. Career opportunities in finance include:

Banking – Bank Examiner, Trust Officer
Investments – Financial Analyst, Security Broker
Corporate – Financial Analyst, Working Capital Management

Minor in Finance

18 credits consisting of ECO 153, 154, 351, FIN 351 and two upper level Finance courses (from FIN 361, 362, 470, 471, 472 and 475.)

Course Descriptions

FIN 351 3 cr.
Introduction to Finance
(Prerequisites: junior standing, ECO 153-154 or 101, ACC 252 or 253, or permission of the instructor) This course introduces students to the field of finance. Topics include time value of money, risk analysis, basic operation of the capital markets, current asset and liability analysis, and introduction to the topics of capital budgeting and cost of capital calculation.

FIN 361 3 cr.
Working Capital Management
(Prerequisite: FIN 351) This course is designed to provide advanced study in the financial-management area through detailed analysis of financial statements, liquidity crises, cash optimization, credit analysis, banking arrangements, loan contracts, commercial paper and the use of money market. (FIN 361 and EMT 461 are offered jointly.)

FIN 362 3 cr.
Investments
(Prerequisite: FIN 351) An introduction to the theory and process of managing investments. Topics include practical operation of the equity markets, debt options and futures markets. Stock-valuation models using fundamental technical and random-walk approaches.

FIN 470 3 cr.
Capital Investment and Structure
(Prerequisite: FIN 351) Advanced study in the "permanent" financial aspects of the firm, including capital-budgeting models, optimal-replacement processes, abandonment, leasing, cost of capital, capital structure, mergers and acquisitions, and bankruptcy.

FIN 471 3 cr.
Derivative Securities
(Prerequisite: FIN 362) This course looks at the nature of derivative securities, focusing on options. It develops pricing models for options, emphasizing the Black-Scholes model. The use of options in various investment strategies is discussed in terms of risk and return. Students use real-time data to implement these strategies.

FIN 472 3 cr.
Portfolio Management
(Prerequisite: FIN 362) Advanced study of professional management of various portfolios including those of banks, insurance companies, pension funds, and non-profit institutions. Markowitz and Sharpe models, data availability, and computerized-data services are covered.

Finance Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16-17	16-17
Second Year				
BUS CORE	ACC 251–252	Financial Accounting I–II	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	ECO 361–362	Intermediate Micro–Macro Economics	3	3
MAJOR	FIN 361	Working Capital Management		3
MAJOR	FIN 362	Investments		3
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	FIN 351–MKT 351	Intro. to Finance–Intro. to Marketing	3	3
BUS CORE	OIM 351–OIM 352	Intro. to Mgt. Science–Intro. to Oper. Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Intl. Business	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
			18	18
Fourth Year				
MAJOR	ECO 460–FIN ELECT	Monetary & Fin. Eco.–Fin. Elective	3	3
MAJOR	FIN 470–FIN ELECT	Capital Investment and Structure–Fin. Elec.	3	3
BUS CORE	OIM 471	Business Information Management		3
BUS CORE	MGT 455	Business Policy & Strategy		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	ELECT	Free Electives	6	
GE PHED	PHED ELECT	Physical Education	1	1
			13	16

TOTAL: 133-135 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

FIN 473 **3 cr.**

Financial Institutions

(Prerequisite: ECO 362) The study of financial markets and financial institutions, including depository and nondepository institutions. Topics include regulation, operation, and management of financial institutions, financial instruments, interest-rate principles, risk-management strategies, loan analysis, and asset/liability management. Insurance and pension principles and investment banking are covered.

FIN/IB 475 **3 cr.**

International Finance

(Prerequisites: ECO 351, FIN 351) This course deals with the environment of international financial management, foreign-exchange risk-management, multinational working-capital management, international financial markets and instruments, foreign-investment analysis, and management of ongoing operations. It also exposes students to a wide range of issues, concepts, and techniques pertaining to international finance.

INTERNATIONAL BUSINESS

Susan Trussler, Ph.D., *Program Director*
See Economics for faculty listing.

Overview

The major in International Business is an interdisciplinary program designed for those Business students who seek an understanding of the complex world within which multinational corporations, national and international agencies, and individuals interact. In the twenty-first century all business activities are becoming more and more international in nature; it is imperative that those who wish to succeed in this international setting have a clear understanding not only of the theory and practice of the core business disciplines, but also of their interaction with the geographic, cultural, and political environments within which multinational corporations operate, and international trade and investment occur. This major is designed to prepare students who wish to work in the international arena – either overseas or in the United States.

Course Descriptions

ECO/IB 351 **3 cr.**
(D) Environment of International Business
(Prerequisites: ECO 153-154, junior standing) This course introduces the student to the field of international business, including the economic, social, and political environments of international trade and multinational corporations. International institutions and agencies that impact on international business are discussed and practical aspects of these topics are emphasized.

ECO/IB 375 **3 cr.**
International Economics
(Prerequisites: ECO 153-154 or ECO 351 or permission of the instructor) This course explains the rationale for international trade and gains from trade and discusses various trade policies. Topics covered in the course include: comparative advantage, free trade and trade restrictions (tariffs, quotas, etc.), the trade policy of the United States, exchange rates and their determinants, balance-of-payments analysis, and the significance of multinational corporations.

ACC/IB 475 **3 cr.**
International Accounting
(Prerequisites: ACC 252 or 254, ECO 351) This course is designed for both accounting and non-accounting majors with an interest in global accounting issues. The environmental influences on accounting development, the reporting standards for selected countries, financial statement analysis, and taxation and managerial accounting issues for multi-national business entities are examined.

FIN/IB 475 **3 cr.**
International Finance Management
(Prerequisites: ECO 351, FIN 351) This course deals with the environment of international financial management, the foreign-exchange-risk management, the multinational working-capital management, the international financial markets and instruments, foreign investment analysis, and the management of ongoing operations. It also exposes students to a wide range of issues, concepts, and techniques pertaining to international finance.

MGT/IB 475 **3 cr.**
International Management
(Prerequisites: ECO, MGT 351) Focuses on functional strategies of multinational corporations (MNCs), structure and control systems of MNCs, and comparative management. Specific MNC strategies to be covered include entry, sourcing, marketing, finance, human resources and public affairs. Study of structure and control systems includes corporate structure and headquarters-subsidiary relationships. Study of comparative management systems focuses on nature of management systems and practices in different cultures.

MKT/IB 475 **3 cr.**
International Marketing
(Prerequisites: MKT 351, ECO 351) Analysis of the marketing strategies of multinational corporations with emphasis on the internal environment of country markets. Discussions will include comparisons of different regional markets along socioeconomic, political and cultural lines. Different types of international market barricades and the corresponding market-entry strategies will be analyzed. Additional readings from international publications will be required.

IB 476 **3 cr.**
U.S.-East Asia Trade and Investment
(Prerequisite: ECO 351) This course describes and analyzes trade and investment flows between

International Business Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Principles of Micro–Macro Economics	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120[2]	Introduction to Philosophy		3
GE C/IL	C/IL 104	Computing and Information Literacy	3	
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT	Foreign Language Electives	3	3
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 253–254	Financial–Managerial Accounting	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business	3	
GE PHIL-T/RS	PHIL 210	Ethics		3
GE T/RS	T/RS 121–122	Theology I–II	3	3
GE NSCI	NSCI ELECT[3]	Natural Science Electives	3	3
GE ELECT	ELECT[5]	Foreign Language Electives	3	3
			18	18
Third Year				
MAJOR	IB ELECT[4]	Advanced IB Electives		6
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	MKT 351–FIN 351	Intro. to Marketing–Intro. to Finance	3	3
BUS CORE	OIM 351–OIM 352	Intro. to Mgt. Science–Intro. to Oper Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Intl. Business	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
GE HUMN	HUMN ELECT	Regional/Global Electives	3	3
			18	18
Fourth Year				
MAJOR	IB ELECT[4]	Advanced IB Electives	6	6
BUS CORE	MGT 455	Business Policy & Strategy	3	
BUS CORE	OIM 471	Business Information Management		3
GE ELECT	ELECT[6]	Regional/Global Electives	3	3
GE ELECT	ELECT[3,5]	Free Electives	(3)	(3)
GE PHED	PHED ELECT	Physical Education	1	1
			13 (16)	13 (16)

TOTAL: 130-132 (136-138) CREDITS[5]

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required, it is taken in place of PHIL 120. C/IL 104 is then moved to the spring of the first year. PHIL 120 will be taken in the second year.*

[3] *If a third math course is required, GE electives are moved from the fourth to the second year. The NSCI sequence is moved to the fourth year.*

[4] *Four of the five functional international business courses and two electives from IB 476, 477, 490, ECO 366, 465 or the the fifth functional IB course.*

[5] *For students requiring EDUC 113 and a third math course, 6 additional credits are needed to complete the foreign-language requirement.*

[6] *Global Studies electives include GEOG 134 (recommended), PS 212, PS 213, T/RS 314. Regional Studies electives are courses that focus on specific countries or regions of the world (not U.S.), including culture courses taught in a foreign language.*

the U.S. and Japan, China, Korea and Taiwan. Topics covered in the course include: economic trends in these countries, U.S. trade and investment with them, U.S. trade deficit, trade policies of the U.S. and these countries, analysis of Japan's KEIRETSU, Korea's CHAEBOL, China's MFN status and Taiwan's environmental problems.

IB 477 **3 cr.**

European Business

(Prerequisite: ECO/IB 351) This course introduces the student to the European business environment, focusing on the implications for international business operations and competitiveness. This includes the study of rapidly changing business environments in Central and Eastern

Europe (CEE) as well as the nations of the European Union (EU). The elimination of barriers to trade, and the response of companies inside and outside the EU to the threats and opportunities of the Single Market are examined.

IB 495 3 cr.
European Business Experience
(Prerequisites: MGT 351, MKT 351, ECO/IB 351) Students will have an opportunity to participate in lecture-discussion sessions with top-level executives from various multinational corporations, local business firms and government agencies in a number of different countries in Europe. Participants will gain a basic understanding of the issues prominent in international business today. Course involves travel to Europe. (MGT 495, MKT 495 and IB 495 are offered jointly.)

MANAGEMENT

Faculty

Gerald Biberman, Ph.D., *Chair*
Alan L. Brumagim, Ph.D.
Cynthia W. Cann, Ph.D.
Satya P. Chattopadhyay, Ph.D.
Jafor Chowdhury, Ph.D.
Irene Goll, Ph.D.
Robert L. McKeage, Ph.D.
Delia A. Sumrall, D.B.A.
Len Tischler, Ph.D.
John M. Zych, D.B.A.

Overview

Management involves getting things done through people. The Management major provides students with a broad-based, generalist background that is designed to provide graduates with the skills and tools needed to cope successfully with the challenging roles and expectations that are sweeping through organizations. "Getting things done" involves analyzing, designing and continuously improving an organization's structure and processes. "Through people" involves leading, motivating, and working effectively with other people in teams and other settings. Management courses use a variety of teaching techniques that involve a high degree of student/faculty interaction–including experiential exercises, student presentations, simulations and team activities–to develop self-analytic skill, team and communication skills. Students working with their faculty and advisors can choose from a variety of courses to design a program of study that will prepare them to enter a variety of positions in private industry and other organizations.

Minors in Management

Management of Structures and Systems: This minor focuses on the skills a successful manager needs to plan, organize, maintain, and improve an organization's structures and systems. The student will take MGT 351, 352, 460, 461, 462 and any upper-level management elective except MGT 455.

Management of People and Teams: This minor focuses on the skills a successful manager needs to meet the management challenges of people and teams in today's workplace. The student will take MGT 351, 352, 361, 362, 471 and any upper-level Management elective except MGT 455.

Course Descriptions

MGT 161 3 cr.
Introduction to Business
Nature, types and principles of business. Overview of business functions – finance, marketing, production, accounting, and management – in an analytical framework. Attention to business environment: legal, governmental, social and ethical. Enrollment is restricted to Associate Business Degree students. Non-Business students may take this course as a free elective with the permission of the dean of Dexter Hanley College.

MGT 210 3 cr.
Business and the Environment
Interdisciplinary course integrates management, marketing and operations management. The course emphasizes the centrality of environmental issues to corporate strategy, and approaches businesses are taking to respond to environmental issues. It is designed for students from various disciplines to learn from each other without having had business courses. Business majors may use this course only to fulfill a free elective.

MGT 251 3 cr.
Legal Environment of Business
The nature, sources, formation, and applications of law. Judicial function, court system, litigation and other methods of resolving disputes. Legislation-law from judicial decisions, law by administrative agencies, regulation of business activity, antitrust law, consumer protection, environ-

Management Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16-17	16-17
Second Year				
BUS CORE	ACC 253–254	Financial–Managerial Accounting	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business	3	
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective		3
			18	18
Third Year				
MAJOR	MGT ELECT[4]	Mgt. Elective		3
MAJOR	MGT ELECT[4]	Mgt. Elective		3
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	MKT 351–FIN 351	Intro. to Marketing–Intro. to Finance	3	3
BUS CORE	OIM 351–OIM 352	Intro. to Mgt. Science–Intro to Oper Mgt.	3	3
BUS CORE	ECO 351/IB 351	Environment of Intl. Business	3	
GE PHIL-T/RS	PHIL-T/RST ELECT	Philosophy or T/RS Elective	3	
			15	15
Fourth Year				
MAJOR	MGT ELECT[4]	Mgt. Electives	3	3
MAJOR	MGT ELECT	Mgt. Electives	3	3
BUS CORE	MGT 455	Business Policy & Strategy	3	
BUS CORE	OIM 471	Business Information Management		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Free Electives	3	6
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 130-132 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *In consultation with their advisors, management majors should choose two of the following four focus courses; MGT 361, 362, 460 or 461. MGT 361 and 362 focus more on people skills; MGT 460 and 461 focus more on organizational and administrative processes.*

ment, and pollution control. Tort, criminal and insurance law, property rights for both personal and real property. Business organization, principle of agency, partnership and corporation.

MGT 351 3 cr.
Principles of Management I
(Prerequisite: Junior standing) Survey course examines key aspects of organizations and their management – dynamic environments, organization design and structure, roles/functions of managers, managing technology and change, global management, and alternative types of organizations. This course examines the expanding role of the manager from planning, organizing, controlling and directing, to the knowledge and skills involved in managing and working with a diverse workforce.

MGT 352 3 cr.
Principles of Management II
(Prerequisite: MGT 351) Survey course examines the individual in the work setting, working with a variety of people inside and outside the organization. This course deals with such issues as motivation, leadership and communication diversity at the work place, and with individual effectiveness, interpersonal relations, and group skills.

MGT 361 3 cr.
Human Resources Management
(Prerequisite: MGT 351) Course explains the functions of a human resources division or department – including job descriptions, labor demographics, recruitment and hiring, turnover and mobility, interviewing, aptitude and other employee testing, performance evaluation, disciplinary procedures, employee health and safety, wage and hour administration, government regulations; and the handling of absenteeism, alcoholism, and drug addiction. (MGT 361 and EMT 463 are offered jointly.)

MGT 362 3 cr.
Employee-Management Relations
(Prerequisite: MGT 351) This examines employee-management practices in contemporary society, employee participation in unions, and their spill-over effect on nonunion settings. Course topics include unions, the collective-bargaining process, wages and benefits, seniority, grievance procedures, and arbitration. Discrimination in employment and equal-employment opportunity will be discussed, as well as future issues in union and nonunion settings and international employee-management relations.

MGT 455 3 cr.
Business Policy and Strategy
(Prerequisites: Senior standing, FIN 351, OIM 352, MGT 352, MKT 351) This is the capstone course for all Business majors. Concepts and skills developed in the prerequisite courses are integrated and applied to the overall management of an organization. Topics will include setting objectives, designing strategic plans, allocating resources, organizational structuring and controlling performance.

MGT 460 3 cr.
Organization Theory
(Prerequisite: MGT 351) Study of the forces both within and outside the organization that determine the structure and processes of an organization. Topics to be covered will include technology and size- influences, conflict, boundary roles, matrix structure, political factors, and sociotechnical systems.

MGT 461 3 cr.
Managing Through Systems and Quality
(Perquisite: MGT 351) Systems theory provides a powerful way to understand work organizations: as interacting, inter-dependent systems. Managing effectively through systems involves working with vision, with empowered, growing people with a customer orientation, with good measures and analysis, and with a continuous improvement culture. This course will focus on these quality management approaches that form the underpinning of tomorrow's management practices.

MGT 462 3 cr.
Project Management in Organizations
(Prerequisite: MGT 351) This course will examine advanced project-management concepts from all phases of the project lifecycle (from requirements-specification through post-project assessment). Special emphasis will be placed on understanding projects within the context of complex organizational settings by utilizing an open-systems perspective. Linkages with more permanent administration structures within the organization will be reviewed. (OIM 462 and MGT 462 are offered jointly.)

MGT 471 3 cr.
Group Dynamics
(Prerequisite: MGT 351 or permission of instructor) Survey of constructs, research and applications of small group phenomena in an organizational contest. Examines theories, research measurements and observational methods used in studying groups. Students will be able to explore their own behavior in groups by participating in various groups and/or by observing others in group experiences. The course will prepare students to be effective in groups.

MGT 472 3 cr.
Women and Men in Management
(Prerequisite: MGT 351) This course explores the opportunities for women in management and the special skills and insights needed by women to take full advantage of such opportunities. It will focus on the effects of having men and women as colleagues in the workplace and the problems that may ensue. Topics to be covered include sexual harassment, the dual-career family and male/female socialization.

MGT 473 3 cr.
Organizational Social Responsibility
(Prerequisite: MGT 351 or permission of the instructor) This course introduces students to basic concepts underlying the social responsibility aspect of the management process. The role of pluralism is examined in the societal system to provide an understanding of the evolving relationship between organizations and society as a whole. The managerial approach is explored in the light of the increasing importance of societal impact on the organization.

MGT 474 3 cr.
(D)Managing a Multicultural Workforce
This course addresses the skills and knowledge managers must develop to deal with an increasingly culturally diverse workforce. Specific topics to be covered include diversity in ethnicity, nationality, religion, culture, gender, age, sexual orientation and disability. The course will help students interact and work with people different from themselves and to understand their own cultural values, biases and behaviors.

MGT/IB 475 3 cr.
International Management
(Prerequisites: ECO, MGT 351) Focuses on functional strategies of multinational corporations (MNCs), structure and control-systems of MNCs, and comparative management. Specific MNC strategies to be covered include entry, sourcing, and marketing, finance, human resources and public affairs. Study of structure and control systems includes corporate structure, headquarters-subsidiary relationships. Study of comparative management systems focuses on nature of management systems and practices in different cultures.

MGT 495 3 cr.
European Business Experience
(Prerequisites: MGT 351, MKT 351, ECO/IB 351) Students will have an opportunity to participate in lecture-discussion sessions with top-level executives from various multinational corporations, local business firms, and government agencies in a number of different countries in Europe. Participants will gain a basic understanding of the issues prominent in international business today. Course involves travel to Europe. (MGT 495, MKT 495, and IB 495 are offered jointly.)

MARKETING

Faculty

Gerald Biberman, Ph.D., *Chair*
Alan L. Brumagim, Ph.D.
Cynthia W. Cann, Ph.D.
Satya P. Chattopadhyay, Ph.D.
Jafor Chowdhury, Ph.D.
Irene Goll, Ph.D.
Robert L. McKeage, Ph.D.
Delia A. Sumrall, D.B.A.
Len Tischler, Ph.D.
John M. Zych, D.B.A.

Overview

Marketing is "people-oriented," focusing on the interaction between the firm and its market (buyers). The marketer explores major needs to develop new products and to position them so that buyers see their relevance. Marketing majors are introduced not only to the visible marketing tools: products, salespeople, and the various selling and promotional techniques, but also to less visible marketing functions: marketing research and the firm's interactions with wholesalers and retailers. The student will develop both the quantitative and qualitative skills needed to succeed in a real business environment.

Course Descriptions

MKT 351 3 cr.
Introduction to Marketing
(Prerequisites: junior standing, ECO 153-154 or ECO 101) This course introduces the student to the field of marketing. An overview of the principles on which the discipline is founded. The marketing concept is presented as the framework under which the decisions related to marketing-mix variables (product, place, price and promotion) are made by organizations.

MKT 361 3 cr.
Marketing Research
(Prerequisite: MKT 351) Study of the role of marketing information as the basis for decision-making. Topics include research design, methods of gathering data, questionnaire structure, interviewing methods and preparing the final report.

Marketing Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			16-17	16-17
Second Year				
BUS CORE	ACC 253–254	Financial–Managerial Accounting	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business	3	
GE PHIL-T/RS	PHIL 210	Ethics	3	
GE PHIL-T/RS	T/RS 122	Theology II		3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective		3
			18	18
Third Year				
MAJOR	MKT 361	Marketing Research		3
MAJOR	MKT 362	Consumer Behavior		3
BUS CORE	MKT 351–FIN 351	Intro. to Marketing–Intro. to Finance	3	3
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	OIM 351–OIM 352	Intro. Mgt. Science–Intro. Oper. Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Intl. Business	3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective	3	
			15	15
Fourth Year				
MAJOR	MKT 470–476	Mkt. Communications–Mkt Strategy	3	3
MAJOR	MKT ELECT	Mkt. Electives	3	3
BUS CORE	MGT 455	Business Policy & Strategy	3	
BUS CORE	OIM 471	Business-Information Management		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Free Electives	3	6
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 130-132 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

MKT 362 **3 cr.**
Consumer Behavior
(Prerequisite: MKT 351) Study of theories of consumer behavior. The buyer is analyzed at the individual level in terms of motivation, attitudes, etc. and at the social level in terms of influence on buying behavior from the socio-economic environment.

MKT 370 **3 cr.**
Interactive Marketing
(Prerequisite: MKT 351) This course examines the integration of evolving interactive technologies in the design and implementation of marketing programs. The use of information technology infrastructure to support the execution of conception, pricing, promotion and distribution of ideas, goods and services has the potential of making the marketing process more efficient and productive. (EC 370 and MKT 370 are offered jointly.)

MKT 370 3 cr.
Interactive Marketing
(Prerequisite: MKT 351, junior standing) This course focuses on the integration of state-of-the-art interactive technologies in the design and implementation of marketing programs. The functions of market identification benefit immensely from the capabilities of the rapidly developing information technology (IT) infrastructure. (MKT 370 and EC 370 are offered jointly.)

MKT 460 3 cr.
Customer Support Systems
(Prerequisites: EMT 351, MKT 351) An interdisciplinary approach to enterprise management that focuses on the customer is emphasized. The objective of the course is to orient enterprise-wide decision making to successful customer-relationship management on an ongoing basis. (MKE 460 and EMT 460 are offered jointly.)

MKT 470 3 cr.
Marketing Communications
(Prerequisite: MKT 351) Personal and mass communication approaches generated by manufacturers and intermediates or institutions toward target markets. The design of advertising campaigns to shift consumer attitudes, to secure resellers' support and to inform, persuade, and move them to action. Development of copy selection and media and measurement of promotion effectiveness including evaluation of sales force.

MKT 471 3 cr.
Sales Force Management
(Prerequisites: MGT 352, MKT 351) This course develops the concepts and techniques needed to identify and analyze the various decision areas faced by a sales-force manager. Topics include recruiting, selecting and training the sales force; forecasting, budgeting and sales quotas; assigning, motivating and compensating the sales force.

MKT 472 3 cr.
Retailing Management
(Prerequisites: MGT 352, FIN 351, OIM 351) This course focuses on the decision areas facing retail managers, including retailing, structure, merchandising, locations, store layout, promotion, pricing and personnel.

MKT/IB 475 3 cr.
(D) International Marketing
(Prerequisites: MKT 351, ECO 351) Analysis of marketing strategies of multinational corporations with emphasis on the internal environment of country markets. Discussions include comparisons of different regional markets along socio-economic, political and cultural lines; different types of international market barricades and corresponding market-entry straregies.

MKT 476 3 cr.
Marketing Strategy
(Prerequisite: MKT 351) The theme of this course is building effective marketing strategies through integrated decision-making. Emphasis is on different decision models within functional areas such as demand analysis, consumer research, product and promotion management, etc.

MKT 495 3 cr.
European Business Experience
(Prerequisites: MGT 351, MKT 351, ECO/IB 351) Students will have an opportunity to participate in lecture-discussion sessions with top-level executives from various multinational corporations, local business firms, and government agencies in a number of different countries in Europe. Participants will gain a basic understanding of the issues prominent in international business today. Course involves travel to Europe. (MGT 495, MKT 495, and IB 495 are offered jointly.)

OPERATIONS AND INFORMATION MANAGEMENT

Faculty

Prasadarao Kakumanu, Ph.D., *Chair*
Ying I. Chien, Ph.D.
S. Kingsley Gnanendran, Ph.D.
Deborah J. Gougeon, Ph.D.
Satyanarayana V. Prattipati, Ph.D.
Rose Sebastianelli, Ph.D.
Nabil A. Tamimi, Ph.D.

Overview

Operations and Information Management is primarily concerned with the effective management of production and operations systems in manufacturing and service organizations. Career opportunities include:

Manufacturing
V.P. Manufacturing
Production Manager
Materials Manager
Inventory Analyst
Warehouse Manager
Plant Manager

Quality Control Manager
Production Planning Analyst
Purchasing Manager
Shipping Specialist

Services
V.P. Operations
Operations Manager
Supplies Specialist
Buyer or Purchasing Agent
Store Manager
Customer Service Manager
Warehouse Manager
Inventory Analyst

Minor in Operations Management

A student must take a minimum of 18 credits. Five courses are required: STAT 252, OIM 351, OIM 352, OIM 470 or OIM 366, and OIM 471 plus one other OIM course.

Course Descriptions

STAT 251 **3 cr.**
(Q) Statistics for Business I
(Prerequisite: MATH 107 or 114) Detailed coverage of descriptive statistics. An introduction to the elements of probability theory (including Bayes's theorem) and decision theory, and index numbers. The major discrete and continuous probability distributions are covered with an emphasis on business applications. Data analysis will be done using appropriate software.

STAT 252 **3 cr.**
(Q) Statistics for Business II
(Prerequisite: STAT 251; corequisite: C/IL 104) A survey of inferential statistical methods covering sampling distributions, interval estimation, hypothesis testing, goodness-of-fit tests, analysis of variance, regression and correlation analysis, and non-parametric statistics. Data analysis will be done using appropriate software.

STAT 253 **3 cr.**
Statistics for Economics
(Prerequisite: MATH 107 or 114) Coverage of statistical tools to analyze economic data. Topics include measures of central tendency, dispersion, probability distributions, index numbers, time series analysis, regression and correlation, and analysis of variance. Data analysis will be done using appropriate software.

OIM 351 **3 cr.**
Introduction to Management
(Prerequisites: C/IL 104, STAT 251) A survey of the quantitative methodology used to solve decision problems by modern businesses. Topics include linear programming methods, waiting line models, project scheduling, and simulation. Emphasis is placed on model building and analysis using spreadsheet software.

OIM 352 **3 cr.**
Introduction to Operations Management
(Prerequisites: OIM 351, STAT 252) A functional view of how to manage the activities involved in the process of converting or transforming resources into products or services. Topics include an overview of strategic decisions, forecasting, product design, process planning, facility layout, basic inventory models, capacity planning, aggregate planning and scheduling.

OIM 353 **3 cr.**
Business Process Overview
This is the first course in the area of Enterprise Management. Students will learn to appreciate the integration of a company's core business processes. Students will be exposed to the main business processes that drive an organization, the interactions within and between them, and the effect of integration on the decision-making environment. This course uses an enterprise-wide integrated information-systems software and simulated data for a model company. (EMT 351 and OIM 353 are offered jointly.)

OIM 363 **3 cr.**
Quality Management
(Prerequisite: STAT 252) The philosophy of Total Quality Management (TQM) and issues concerning its implementation are studied, covering the approaches of well-known leaders in the field, e.g., Deming. Topics include employee empowerment, quality-improvement tools, cross-functional teams, leadership for quality, statistical-process control, process capability, Taguchi methods, ISO 9000 standards, and the role of inspection in quality management.

OIM 366 **3 cr.**
Supply Chain Management
(Prerequisite: OIM 471 or permission of instructor) Many companies view Supply Chain Management as the core of their business strategy. Student will learn how principles of Supply Chain Management integrate into the management of the enterprise and the business processes. Students will examine the use of information technologies

Operations and Information Management Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
GE S/BH	ECO 153–154	Prin. of Micro–Macro Economics	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE C/IL	C/IL 104	Computing and Information Literacy		3
GE QUAN	MATH ELECT[1]	Math Option (two courses)	3-4	3-4
GE HUMN	HUMN ELECT[2]	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar–Physical Education	1	1
			16-17	16-17
Second Year				
BUS CORE	ACC 253–254	Financial–Managerial Accounting	3	3
BUS CORE	STAT 251–252	Statistics for Business I–II	3	3
BUS CORE	MGT 251	Legal Environment of Business		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	ELECT[3]	Free Elective	3	
			18	18
Third Year				
MAJOR	OIM 353	Business Process Overview	3	
MAJOR	OIM 363	Total Quality Management	3	
BUS CORE	MGT 351–352	Principles of Management I–II	3	3
BUS CORE	MKT 351–FIN 351	Intro. to Marketing–Intro to Finance	3	3
BUS CORE	OIM 351–OIM 352	Intro. to Mgt. Science–Intro. to Oper Mgt.	3	3
BUS CORE	ECO/IB 351	Environment of Int'l Business		3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
			15	15
Fourth Year				
MAJOR	OIM 470	Production Planning and Control	3	
MAJOR	OIM 366	Supply Chain Management		3
MAJOR	MAJOR ELECT	Major Electives[4]	3	3
BUS CORE	MGT 455	Business Policy & Strategy	3	
BUS CORE	OIM 471	Business Information Management		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Free Electives	3	6
GE PHED	PHED ELECT	Physical Education	1	1
			16	16

TOTAL: 130-132 CREDITS

[1] *See note on Math Options on page 205.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *Major electives: two OIM courses, EC 472, or MGT 462.*

in Supply Chain Management. Computer software will be used to gain hands-on experience. (OIM 366 and EC 470 are offered jointly.)

OIM 462 3 cr.
Project Management in Organizations
(Prerequisite: MGT 351) This course will examine advanced project-management concepts from all phases of the project lifecycle (from requirements-specification through post-project assessment). Special emphasis will be placed on understanding projects within the context of complex organizational settings by utilizing an open-systems perspective. Linkages with more permanent administration structures within the organization will be reviewed. (OIM 462 and MGT 462 are offered jointly.)

OIM 470 3 cr.
Production Planning and Control
(Prerequisite: OIM 352) This course is concerned with the study of production planning and control activities in an enterprise resource-planning context. Topics include forecasting,

aggregate planning, capacity planning, master production scheduling, material requirements planning, production activity control, purchasing, inventory models, and Just-in-Time Systems. The interactions between operations and the other functional areas of the business will be emphasized.

OIM 471 **3 cr.**
Business Information Management
(Prerequisite: C/IL 104) Computers and how they can be applied to the operations and management of business firms. Topics include data-processing concepts, overviews of computer hardware and software, modern data- and information-processing systems, applications of computers in business, acquiring and managing of computer and information resources. Software packages will be used to gain hands-on experience.

OIM 472 **3 cr.**
Electronic Business and Entrepreneurship
(Prerequisites: EC 361, EC 362) The course examines the issues related to the starting of new technology-based businesses. It focuses on entrepreneurial traits, idea generation, entry strategies, marketing plans and development of business plans. Venture capital and other forms of financing will also be covered. In addition there will be a discussion on legal and intellectual properties issues. (OIM 472 and EC 472 are offered jointly.)

OIM 473 **3 cr.**
Business Applications of Communication Networks
(Prerequisite: OIM 471) Students explore the use of computer and telecommunication networks to achieve organizational goals. Topics include data communications; planning and design of communication networks; data integrity, independence and security; client-server computing; global communication; the Internet; applications of telecommunication networks and current issues and future trends. (OIM 473, EC 473, and AIS 483 are offered jointly.)

The Panuska College of Professional Studies

The Panuska College of Professional Studies prepares students in a wide range of professions, principally in allied health and education. The College has been designed with the conviction that all disciplines should be taught and understood through a balance of theory and practice. An exclusively theoretical understanding of a discipline is incomplete. Practice for which there is no understood context is of limited value. It is this belief that structures the College's pedagogy and curriculum. Panuska College students receive exemplary preparation for the profession of their choice, and a solid education in the liberal arts and sciences. In addition, students perform community service annually as a requirement for graduation. In this way, the service aspects of their prospective careers can be understood in personal and comprehensible terms. Such an ethic has roots in antiquity, is Catholic and Jesuit in tradition and spirit, and responsive to contemporary needs. All of the College's programs are accredited by the appropriate professional organizations.

COUNSELING AND HUMAN SERVICES

Faculty

Oliver J. Morgan, Ph.D., *Chair*
Lori Ann Bruch, Ed.D.
Thomas M. Collins, Ph.D.
Lee Ann M. Eschbach, Ph.D.
David W. Hall, Ph.D.
Elizabeth J. Jacob, Ph.D.
Ann Marie Toloczko, Ph.D., *Program Director*

Overview

The Counseling and Human Services curriculum is designed to develop in students the values, knowledge and skills necessary to work with people in a variety of settings and situations. The sequence of courses focuses on understanding normal and abnormal human adjustment across the lifespan and on developing skill in interventions designed to maximize human adjustment and development. Core requirements in the major emphasize values, knowledge and skills common to all fields of human services, while electives allow students to develop competence in assisting specific populations. A 3-credit, 120-hour internship experience is required of all majors, with a second, 3-credit internship available as an elective.

Students must maintain a minimum grade of C in all major courses and cognate courses, and full-time students must complete a minimum of 10 hours of community service during each fall and spring semester registered as a Counseling and Human Services major. Dexter Hanley College students will meet the service-learning requirement by completing major courses that have a service-learning component. They will not be required to complete additional service-learning hours.

The curriculum is geared toward students who have high social-science interests as well as general scientific interest and aptitude in the social and behavioral sciences. The curriculum prepares students for entry-level positions in a variety of human-services positions in private or public settings, or for graduate study in counseling, social work, or related social or behavioral science professions.

Recent graduates have pursued master's degrees in social work; community, rehabilitation or school counseling; occupational therapy; art therapy; human resources administration; audiology and law. They have attended the University of Pennsylvania, Fordham University, New York University, Rutgers, Hunter College, Adelphi University and the University of Maryland.

Concentration in Rehabilitation Services

The Counseling and Human Services curriculum has expanded to offer a concentration in rehabilitation services to enhance the knowledge and practice for work with persons with disabilities in response to an increasing need for baccalaureate-level professionals in rehabilitation services. Through a concentration in rehabilitation services, students will be prepared to work in state and local agencies that are responsible for the vocational, mental-health, job-development and coaching, and related needs of persons with disabilities. Included in this concentration can be an emphasis on persons with addiction and substance-abuse disabilities. This concentration is for Counseling and Human Services majors only.

Combined Baccalaureate/Master's Program

Outstanding Counseling and Human Services majors are eligible for consideration in this program (please refer to the catalog sections on Special Programs or The Graduate School and to the *Graduate School Catalog* for specifics of the program). Community Counseling, Rehabilitation Counseling and School Counseling are graduate programs available for students of high academic quality and clear professional goals. Each graduate program is nationally accredited, and the Department of Counseling and Human Services is recognized regionally and nationally in Counselor Education. Three faculty received the Outstanding Counselor Educator Award for the state of Pennsylvania.

Pastoral Studies Track

The Departments of Counseling and Human Services and Theology/Religious Studies are offer Pastoral Studies track. The program is incorporated into the 131-credit B.S. in Counseling and Human Services and the 130-credit B.A. in Theology/Religious Studies. Students in the interdisciplinary program pursue a formal curriculum that

includes interdisciplinary team-taught courses, experiential learning via an internship in pastoral studies and a capstone seminar to integrate professional experiences. The program is an excellent opportunity for students interested in pursuing advanced training in pastoral services.

Completion of this program will be noted on the Counseling and Human Services major's transcript. The student must either be pursuing a double major or a minor in Theology/Religious Studies. Students are required to complete the following courses specific to the program: CHS 439 Psychology and Spirituality; CHS 380 Internship in Pastoral Studies; and HADM 284 Pastoral Studies Capstone Seminar.

Minor in Counseling and Human Services

A minor in Counseling and Human Services requires CHS 111, 112, 241, 242, 341 and one CHS elective course.

Course Descriptions

CHS 111 3 cr.
(S) Introduction to Human Adjustment
Introduction to human adjustment throughout the lifespan. Focuses on discrimination of normal and abnormal behavioral and emotional responses to developmental life stages and to common developmental concerns.

CHS 112 3 cr.
Human-Services Systems
Examines the human-services systems and institutions which have evolved as a response to human need. Explores both the effect of social problems on individuals and families and the service systems designed to alleviate such problems. *Includes service-learning component.*

CHS 241 3 cr.
(D) Case Management and Interviewing
The role of the human-service professional as a case manager or coordinator of services is examined. Initial interviewing skills and techniques are discussed with an emphasis on case conceptualization, problem identification, goal selection, evaluation, and follow-up. *Includes service-learning component.*

CHS 242 3 cr.
Counseling Theories
The role of the human-services professional as an individual counselor or caseworker is examined. Theories and techniques as well as problems in individual counseling are explored.

CHS 284 3 cr.
Special Topics
Courses developed to provide in-depth coverage of specific topics in human services. Course title will be provided in advance of registration. May be used only twice to satisfy major or minor elective requirement.

CHS 293 3 cr.
(W) Research Methods in Human Services
An introduction to research methodology as applied to problems in human-services agencies and settings. Specific topics include descriptive, experimental, and quasi-experimental research methods. Emphasis is placed on development of the student's ability to be a critical consumer of research in human services.

CHS 321 3 cr.
Physical Disabilities
Selected physical conditions and/or disabling conditions are examined with particular emphasis on body systems involved, treatment possibilities, residual function limitations, and psychological impact of each condition.

CHS 322 3 cr.
Cognitive Disabilities
Etiology, assessment, diagnosis, treatment and prevention of cognitive disabilities are presented. This course examines both student and societal beliefs concerning persons with cognitive disabilities. The implications of living with cognitive disabilities will be explored and the impact of disability culture as a means to facilitate the empowerment of children and adults with cognitive disabilities will be presented.

CHS 323 3 cr.
Psychiatric Rehabilitation
An examination of the problems associated with mental and emotional disturbances. Emphasis is placed on contemporary modalities of rehabilitation as they relate to community mental-health programs, and innovative non-medical treatment approaches. Critical issues in mental health will be discussed.

CHS 331 3 cr.
Health and Behavior
Focuses on stress which affects thoughts, emotions, and the body. Stress diseases of adaption include cancer, Type A Behavior, GI tract disorders along with stress-related thought disorders and emotional disturbances. Students learn to

Counseling and Human Services Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	CHS 111	Intro. to Human Adjustment	3	
MAJOR	CHS 112	Human Service Systems[1]		3
COGNATE(GE S/BH)	PSYC 110	Fundamentals of Psychology		3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro Philosophy–Theology I	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE FSEM	INTD 100	Freshman Seminar[1]	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	CHS 241	Case Mgt. and Interviewing[1]	3	
MAJOR	CHS 242	Counseling Theories		3
MAJOR	CHS 293	Research Methods		3
GE S/BH	PSYC 221	Childhood and Adolescence	3	
COGNATE	PSYC 222	Adulthood and Aging		3
GE QUAN	QUAN ELECT	Elective	3	
GE PHIL-T/RS	PHIL 210–T/RS122	Ethics–Theology II	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
			18	18
Third Year				
MAJOR	CHS 333	Multiculturalism in H.S.[1]	3	
MAJOR	CHS 340	Career Seminar	1	
MAJOR	CHS 341	Group Counseling[1]	3	
MAJOR	CHS 380	Internship		3
MAJOR	CHS ELECT	Counseling and Human Services Electives	6	6
COGNATE	S/BH ELECT	Social/Behavioral Electives	3	3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE PHED	PHED ELECT	Physical Education	1	1
			17	16
Fourth Year				
MAJOR	CHS 441	Crisis Intervention[1]	3	
MAJOR	ELECT	Counseling and Human Services Electives		3
COGNATE	S/BH ELECT	Social/Behavioral Electives	6	6
GE ELECT	FREE ELECT	Free Electives	6	6
			15	15

TOTAL: 131 CREDITS

[1] *Includes service-learning component.*

To avoid duplication of course content, Counseling and Human Services majors should not take PSYC 225 (Abnormal Psychology), PSYC 224 (Personality), PSYC 330 (Research Methods), or PSYC 360 (Clinical Psychology). Students who wish to declare a double major or a minor in Psychology should consult their advisors.

apply relaxation, cognitive restructuring and record-keeping in the treatment of their own as well as others' health.

CHS 332 3 cr.
Career Development
Explores theories of career choice and adjustment. Emphasis will be placed upon methods and resources for facilitating career development throughout the life span. Career education, computerized information systems, and decision-making methods will be considered along with innovative approaches for placement of special-needs populations.

CHS 333 3 cr.
(D) Multiculturalism in Human Services
Focuses on current social and cultural issues in human services and related fields. Human development in a multicultural society will be examined and the basic objectives and dimensions of multicultural intervention will be defined. Student self-awareness of values, attitudes, and beliefs will be emphasized. *Includes service-learning component.*

CHS 334 3 cr.
Marital and Family Counseling
Theories of family counseling will be presented with specific attention to the structural and strategic approaches. A variety of family-counseling techniques and stages will be learned through the use of role play and videotaping. The utilization of family counseling will be discussed. (Also listed as HD 234.)

CHS 335 3 cr.
Administration in Human Services
Focuses on the development of skills and knowledge related to program and organizational development, and community-wide planning in human services. Topics include organizational theory applied to human-service settings, consultation, supervision, planning, funding and training.

CHS 336 3 cr.
Recreational Therapy
Designed to develop an understanding of purpose, organization, administration and delivery of recreational-therapy services for the handicapped.

CHS 337 3 cr.
(W, D) Counseling Girls and Women
This course is designed to explore the topic of counseling girls and women in a sociocultural, historical, and multicultural context. Through the examination of the history of women (e.g., social construction of gender, identity) from a self-in-relation foundation, and feminist counseling and its role in de-pathologizing the importance of relationships to girls and women will be explored.

CHS 338 3 cr.
Poverty, Homelessness and Social Justice
Focuses on developing an understanding of the social, historical and political dimensions of poverty and homelessness in the U.S. and explores the implications for distributive justice. Students assess the effectiveness of the social policies and programs created to combat poverty and homelessness, and participate in course-required service learning and social action projects. *Includes service-learning component.*

CHS 340 1 cr.
Career Seminar
(Majors only; prerequisite for CHS 380)
Designed to introduce the student in the Counseling and Human Services curriculum to counseling, human development and human-services occupations. Short- and long-term goals are examined in preparation for employment or further study.

CHS 341 3cr.
Group Dynamics
A basic understanding of group dynamics and individual behavior in groups is presented. Methods of developing and organizing group programs are stressed. Students participate in a group experience. *Includes service-learning component.*

CHS 342 3 cr.
Foundations of Rehabilitation
Students will develop sensitivity, appreciation and understanding of what it means to have a disability. Topics covered will include federal, state and community mandates, independent-living concepts, and the basic principles of rehabilitation. A comprehensive review will occur of the variety of rehabilitation programs. Ethical decision-making will be integrated into the course and students will learn to practice with cultural sensitivity. Site visits to rehabilitation agencies and applied experiences will be provided.

CHS 343 3 cr.
Medical and Psychosocial Aspects of Disabilities
Students will acquire knowledge and understanding of the medical, functional and psychosocial aspects of a wide array of disabilities. The emphasis will be holistic and person-centered. Curricu-

Counseling and Human Services Concentration in Rehabilitation Services Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	CHS 111	Intro. to Human Adjustment	3	
MAJOR	CHS 112	Human Service Systems[1]		3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro Philosophy–Theology I	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE FSEM	INTD 100	Freshman Seminar[1]	1	
GE PHED	PHED ELECT	Physical Education		1
			16	16
Second Year				
MAJOR	CHS 241	Case Mgt. and Interviewing[1]	3	
MAJOR	CHS 242	Counseling Theories		3
MAJOR	CHS 293	Research Methods		3
COGNATE(GE S/BH)	PSYC 221	Childhood and Adolescence	3	
COGNATE	PSYC 222	Adulthood and Aging		3
GE QUAN	QUAN ELECT	Elective	3	
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE NSCI	NSCI ELECT	Natural Science Electives	3	3
			18	18
Third Year				
MAJOR	CHS 333	Multiculturalism in H.S.[1]	3	
MAJOR	CHS 340	Career Seminar	1	
MAJOR	CHS 341	Group Counseling[1]	3	
MAJOR	CHS 342	Foundations of Rehabilitation	3	
MAJOR	CHS 343	Med. & Psychosoc. Aspects of Disability	3	
MAJOR	CHS 344	Vocational Education		3
MAJOR	CHS ELECT	Counseling and Human Services Electives	3	6
COGNATE	S/BH ELECT	Social/Behavioral Elective	3	
GE ELECT	FREE ELECT	Free Elective		3
GE PHED	PHED ELECT	Physical Education	1	1
			17	16
Fourth Year				
MAJOR	CHS 440	Job Development	3	
MAJOR	CHS 441	Crisis Intervention[1]	3	
MAJOR	CHS 480	Internship in Rehabilitation Services		3
MAJOR	CHS ELECT	Counseling and Human Services Electives	3	3
MAJOR	CHS ELECT	Counseling and Human Services Electives	3	3
COGNATE	S/BH ELECT	Social/Behavioral Electives	3	3
GE ELECT	FREE ELECT	Free Electives		3
			15	15

TOTAL: 131 CREDITS

[1] *Includes service-learning component.*

To avoid duplication of course content, Counseling and Human Services majors should not take PSYC 225 (Abnormal Psychology), PSYC 224 (Personality Theories), PSYC 330 (Research Methods), or PSYC 360 (Clinical Psychology).

lum components include learning medical terminology, the use of medical information and discussion of psychosocial aspects of disability. Students will have the opportunity to interact with persons with disabilities.

CHS 344 3 cr.
Vocational Evaluation
This course focuses on the theme of assessment and employment of individuals with disabilities. Students will discover the impact of the Rehabilitation Act Amendments of 1998 and the ADA on employment concerns of persons with disabilities. Students will compile and utilize assessment information such as prior records, test results, work samples and situational assessment.

CHS 380 3 cr.
Internship in Human Services
(Prerequisite: CHS 340) The internship is a significant clinical and educational experience. It provides both a supervised practical experience in the student's field and an opportunity to integrate knowledge and skills. Students will spend a minimum of 120 hours in the field placement. Offered only during the spring semester; prerequisite for CHS 481.

CHS 421 3 cr.
Addictions
An integrated biophysical model of addition and recovery is described. Approaches to assessment, treatment and relapse prevention are covered.

CHS 422 3 cr.
Substance-Abuse Education
Design, implementation, and evaluation of substance-abuse education and prevention programs.

CHS 423 3 cr.
Legal and Health Aspects of Substance Abuse
Legal and health consequences of substance abuse are examined. Special attention is given to the role of family dynamics, recovery process, dual disorders and ethics in the counseling process.

CHS 439 3 cr.
Psychology and Spirituality
This course will assist students in understanding various models of spirituality and their potential integration into the counseling process. Critical reflection on a variety of diverse spiritual perspectives and their implications for human services practice is encouraged. Current research in the area of spirituality and counseling is examined.

CHS 440 3 cr.
Job Development
An awareness of the changing world of work will be the backdrop for job analysis, labor-market surveys; vocational adjustment, job development and job placement. Students will be exposed to both traditional and current models of employment for individuals with disabilities. Coordination of services with collaborating agencies (e.g., social, financial and vocational) will be included. Rehabilitation technology and adapted computer applications will be emphasized.

CHS 441 3 cr.
Crisis Intervention
Theory and practice of crisis intervention as applied to common crisis situations such as suicide, battering, violent behavior, post-traumatic stress disorder, substance abuse, sexual assault, and personal loss. *Includes service-learning component.*

CHS 480 3 cr.
Internship in Rehabilitation Services
(Prerequisite: CHS 340) The internship is specifically designed for students in the Rehabilitation Services concentration. Students will spend a minimum of 150 hours in their field placement. The internship provides a practical experience in the rehabilitation field and an opportunity to integrate course knowledge. The internship will be offered in the spring semester of the student's fourth year.

CHS 481 3 cr.
Internship in Human Services
(Prerequisite: CHS 380) This advanced internship in Counseling and Human Services involves 150 hours in a community agency or organization providing human services. It allows the student to explore a different type of organization or experience within an organization. This internship may be taken during any regular academic semester including intersession and summer and may be completed outside of the immediate University region. Approval of program director is required.

EDUCATION

Faculty

Deborah Eville Lo, Ph.D., *Chair*
Donna Bauman, Ph.D.
Joseph M. Cannon, M.Ed.
Barbara Cozza, Ph.D.
Anthony DeCarli, Ed.D.
Joseph A. Fusaro, Ed.D.
Thomas W. Gerrity, Ed.D.
Patrice Gross, Ed.D.
Timothy J. Hobbs, Ph.D.
Nancy J. Kolodziej, Ed.D.
Tata J. Mbugua, Ph.D.
Kathleen K. Montgomery, D.Ed.
Ivan A. Shibley, D.Ed.
Gloria T. Wenze, Ed.D.
David A. Wiley, Ed.D.

Overview

The Department of Education endeavors to contribute to the improvement of education by preparing informed, inquiring, and skilled professionals who, as scholars and decision-makers, are prepared for positions in the educational community. More specifically, the department aims to provide persons with a breadth and depth of knowledge and understanding in their specialized areas of professional practice and to provide training to ensure competence in the specific area of functioning. To this end, individual program competencies have been developed. Additionally the Department endeavors to offer opportunities for continued professional growth to practicing educators, to assist in the educational growth and development of the community served by the University, and to foster the advancement of knowledge through research in education.

The Department of Education offers degrees in Early Childhood, Elementary and Special Education, each leading to certification. Secondary Education concentrations lead to certification in:

Biology	General Science
Chemistry	German
Citizenship	Latin
Communication	Mathematics
English	Physics
French	Spanish

Elementary Education leads to state certification (Pennsylvania, K-6) and Early Childhood Education (pre-K–3).

The department's programs are accredited by the Pennsylvania Department of Education. The University's Professional Education Unit is also accredited by the National Council for Accreditation of Teacher Education. Accreditation and interstate agreements between Pennsylvania and selected states assure that courses taken will be considered for certification in most states. Praxis Series I & II tests are required for Pennsylvania Teacher Certification. Students are accepted to the University as Education Majors, but progress beyond 48 credits may occur only upon application for Teacher Candidate status. Materials necessary for the application process include teacher recommendations, completion of specific courses, and passing scores on the appropriate Praxis Series I tests as might be required by the Pennsylvania Department of Education. Completing the application process will admit the education major to Teacher Candidacy and permit the student to engage in junior-level course work. Materials necessary for the application are available from the Education Department and the CPS Advising Center.

A student may enter the Secondary Education program either as a major in Education or as a major in an academic department with a second major in the Education Department. However, in both cases the student must be approved by the department and follow the prescribed courses if the student desires certification. Registration into Education Department courses numbered 230 and above are limited to majors or second majors in the programs of the Education Department. Exceptions require the expressed permission of the assistant dean and chair of the department. All aspects of the state-approved program must be completed to ensure recommendation for certification.

Double majors, including both a subject area and Education, may be arranged in the case of exceptional students. These must be approved by both departments involved and by the college dean. A specific program will be designed in each individual case. Double-certification programs may also be arranged with the approval of the appropriate program directors.

Education majors are evaluated regularly at a meeting of the Education Department faculty

to assess each individual student's continuing potential to become a teacher. This determination is based on academic and personal qualities consistent with the competencies stated in *The Education Student Handbook* (available from the Education Department Web site). The academic standard of the Education Department is established by the laws of the Commonwealth of Pennsylvania and the regulations of the Pennsylvania Department of Education. For first-year students entering the University in the academic year 2003-04, the GPA standard is 3.0. This standard applies to each of three GPA calculations: (1) overall; (2) education major course only, and 3) teaching area courses. Additionally, a grade of C or better is required in all major and teaching-area courses to student-teach and to elicit a recommendation for certification. Students whose professional development is unsatisfactory are subject to departmental probation and may be recommended to the dean of the college for dismissal from the Education program. The department's probation policy and other information are presented in *The Education Student Handbook.* All Education majors are required to perform 10 hours of community service per academic year. The service hours for freshman, sophomore and junior Education majors are normally performed in a semester opposite the required field experience of that academic year. The service hours for senior education majors are performed as part of the students' professional development during their senior student-teaching experience. Secondary Education majors perform 20 hours of service in their freshman year and have no service requirement for their sophomore year.

Additionally, as a matter of University policy, all Education majors are required to submit a completed Act 34 clearance and the Pennsylvania Child Abuse History Clearance to the Education Department prior to being placed at any field experience site that would put them in direct contact with children. This clearance is collected by the University on behalf of the school entity wherein the field experience will occur. Completed clearances should be submitted with field-experience information forms required by the Director of Field Placement. In no case will a student be provided with placement information previous to the director's receipt of the completed forms. The completed clearance forms may be delivered to the school entity by the Education Department after the clearance form is obtained by the student. The University will not maintain a student's Act 34 clearance form or background check after delivery of the clearance form to the school entity wherein the field experience will occur.

Due to new Pennsylvania Department of Education mandate, changes in teacher education programs may require changes to curricular requirements for all of the education programs. The following outline presents the criteria for admission into candidacy for certification after the student has completed at least 48 semester hours.

Education Certification Candidacy Track – Admission to Teacher Education Programs for Freshmen Entering in or after Fall 2002

1. Verification of at least 48 semester hours that include the required 6 semester hours of mathematics and the required 6 semester hours of English.
2. Verification of a 3.0 GPA or higher.
3. Official ACT 34/151 clearances.
4. Completion of the following courses, with a minimum grade of C in teaching area and major courses:

EDUC 121	Foundations of Education
EDUC 180	Field Experience I
EDUC 280	Field Experience II
ENLT 103	Children's Literature (Secondary Education majors may substitute any ENLT literature course)
WRTG 107	Composition

Three semester credit hours of mathematics that must include one of the following:*

MATH 204	Special Topics of Statistics
PSYC 210	Statistics in the Behavioral Sciences
EDUC 120	Applied Statistics
PS 240	Political Science Statistics
S/CJ 215	Statistics for the Social Sciences

Three semester credit hours of mathematics that must include one of the following:*

MATH 106	Quantitative Methods
MATH 201	Algebra and Environmental Issues

** Requirements may differ for students pursuing certification in mathematics or the sciences.*

5. Passing scores on the Praxis Series I examinations.

6. Completed recommendations from faculty in the following courses:

EDUC 121	Foundations of Education
EDUC 180	Field Experience I
EDUC 280	Field Experience II

Freshman and sophomore students will confer with their academic advisors in order to plan the sequence of courses that will be taken for each term. Entering freshmen will be given the new program requirements prior to orientation. All the courses mentioned above will be a part of the new programs.

Federal regulations in the Higher Education Act of 1998 require that departments of teacher education report their students' performance on the Praxis Series examinations. An analysis of the results from the most recent academic year is available from the Chair of the Department of Education.

Course Descriptions

The following courses are not available to students matriculating during or after fall 2001: EDUC 140, EDUC 242, EDUC 344, EDUC 345, EDUC 346, EDUC 347, EDUC 351, EDUC 352, EDUC 451.

The Education Department ordinarily does not permit students to take courses concurrently with the student-teaching sequence. Students seeking deviations from this policy must complete a form requiring the approvals of the advisor, the appropriate program director, the department chairperson, and the dean. Student teaching requires application, which must be submitted to the appropriate advisor and approved by the program director, prior to registration for the student teaching semester. Completed ACT 34 and Child Abuse History Clearance forms are required previous to receiving a field assignment.

EDUC 110 **3 cr.**
Values Development
A course designed to acquaint the student with theories relating to value development: what values are, and how they are formed. The affective process, value systems, activities for value-development suitable for use by parents, teachers and others involved in human relations will be covered. Open to all majors.

EDUC 113 **3 cr.**
Reading-Research
A course designed to increase a student's proficiency in reading and research. The following skill areas will be covered: comprehension, vocabulary, expression, critical analysis, library and study skills. Students will be required to develop minimum computer competencies. Lecture and laboratory approaches are utilized with the emphasis on individualized instruction.

EDUC 120 **3 cr.**
(Q,W) Applied Statistics
(Prerequisite: WRTG 107) This course is designed to enable students to use statistics to solve problems and to communicate clearly the procedures employed and the results obtained. Students will be required to perform statistical computations and to write as a means of learning the course material. Topics covered include hypothesis testing, correlation, t-test and Chi-square test.

EDUC 121 **3 cr.**
The Foundations of Education
This course is designed to examine the characteristics of the public school system in the United States, the role of education in contemporary society, and current issues related to education.

EDUC 131 **3 cr.**
(D) Experiencing Cultural Diversity through Children's Literature
A course designed to introduce students to the diversity of cultures represented in children's literature as a way to identify and differentiate the variety of cultures that they may encounter as teachers.

EDUC 180 **1 cr.**
Field Experience I
(Pre- or co-requisite: EDUC 121) This course prepares for field-experience requirements in EDUC 280 and 380. It focuses on the development of observation and reflective skills through case studies, vignettes and video situations. Application required.

EDUC 222 **3 cr.**
Educational Psychology
(Prerequisite: Psych 110) This course examines the psychological basis of teaching strategies, classroom environment, learning, motivation, reinforcement, and evaluation.

Early Childhood Education Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	ENLT 103	Children's Literature		3
GE QUAN	MATH 106–ELECT	Quantitative Methods I[2]–Stats Elective	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE S/BH	PSYC 110	Fund. of Psychology	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar[1]–Physical Education[3]	1	1
GE PHIL-T/RS	T/RS 121	Theology I		3
GE C/IL	C/IL 102	Computing & Information Litetacy		3
			17	16
Second Year				
MAJOR	EDUC 222	Educational Psychology	3	
MAJOR	EDUC 280–241	Field Experience II–Foundations of Reading[1]	1	3
COGNATE	EDUC 256–THTR 110	Family & Comm Rel–Intro to Theater	3	3
GE HUMN	HIST 110	History of the United States	3	
GE NSCI	PHYS 102	Earth Science	3	
GE PHIL-T/RS	PHIL 120–T/RS 122	Intro to Philosophy–Theology II	3	3
COGNATE	EDUC 251	Development of Early Learner		3
GE S/BH	PSYC 221	Childhood & Adolescence		3
GE ELECT	GEOG 134	World Reg. Geography		3
GE PHED	PHED ELECT	Physical Education[3]	1	
			17	18
Third Year				
MAJOR	EDUC 380	Field Experience III	1	
MAJOR	EDUC 356–354	ECE LA/SS/ARTS[1]–Math/Sci/Health	4	4
MAJOR	EDUC 341–252	Educ of Exceptional Child–Assess in ECE	3	3
COGNATE	EDUC 342–343	Ed Media & Tech–Eval & Meas.	3	3
COGNATE	EDUC 362–NURS 100	Psycholinguistics–Family Health	3	3
GE PHIL-T/RS	PHIL 210	Ethics	3	
GE NSCI	NSCI 201	Science in Human Environment		3
GE PHED	PHED ELECT	Physical Education[3]	1	
			17	17
Fourth Year[4]				
MAJOR	EDUC 440	Professional Practice Seminar	3	
MAJOR	EDUC 456	Student Teaching, Planning	2	
MAJOR	EDUC 457	Student Teaching, Instruction	3	
MAJOR	EDUC 458	Student Teaching, Management	2	
MAJOR	EDUC 459	Student Teaching, Prof. Dev.	3	
GE PHIL-T/RS	ED/P 306	Philosophy of Education		3
GE HUMN	HUMN ELECT	Humanities Electives		6
GE ELECT	ECON 410	Economics for Educators		3
GE ELECT	FREE ELECT	Free Electives		6
			13	18

TOTAL: 133 CREDITS

[1] *Includes service-learning component.*

[2] *May be replaced by MATH 201.*

[3] *PHED – 1 credit in Movement and Dance required.*

[4] *Semesters may be reversed at the discretion of the department.*

Elementary Education Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	ENLT 103	Children's Literature		3
GE QUAN	QUAN ELECT	Quantitative Methods I[2]–Stats Elective	3	3
GE WRTG-SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE S/BH	PSYC 110	Fund. of Psychology	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE FSEM–PHED	INTD 100–ELECT	Freshman Seminar[1]–Physical Education[3]	1	1
GE PHIL-T/RS	T/RS 121	Theology I		3
GE C/CIL	C/IL 102	Computing & Information Literacy		3
			17	16
Second Year				
MAJOR	EDUC 222–244	Educ Psychology–Plan Effect Elem Instr.	3	3
MAJOR	EDUC 280	Field Experience II	1	
MAJOR	EDUC 241	Foundations of Reading[1]		3
GE NSCI	PHYS 102–NSCI 201	Earth Science–Sci. in Human Env.	3	3
GE PHIL-T/RS	PHIL 120–PHIL 210	Intro to Philosophy–Ethics	3	3
GE PHIL-T/RS	T/RS 122	Theology II	3	
GE HUMN	HIST 110–ELECT	History of the United States–Hum Elective	3	3
GE S/BH	PSYC 221	Childhood & Adolescence		3
GE PHED	PHED ELECT	Physical Education[3]	1	
			17	18
Third Year				
MAJOR	EDUC 348[1]–349	Math/Sci. Methods–LA/SS Methods	4	4
MAJOR	EDUC 380	Field Experience III	1	
MAJOR	EDUC 341	Education of the Exceptional Child		3
COGNATE	EDUC 343–362	Eval. & Measurement–Psycholinguistics	3	3
COGNATE	EDUC 342	Education Media & Technology	3	
COGNATE	NURS 100	Family Health	3	
GE ELECT	PS 135–GEOG 134	State & Local Govt.–World Reg Geog	3	3
GE PHIL-T/RS	ED/P 306	Philosophy of Education		3
GE PHED	PHED ELECT	Physical Education[3]		1
			17	17
Fourth Year[4]				
MAJOR	EDUC 440	Professional Practice Seminar	3	
MAJOR	EDUC 441	Student Teaching, Planning	2	
MAJOR	EDUC 442	Student Teaching, Instruction	3	
MAJOR	EDUC 443	Student Teaching, Management	2	
MAJOR	EDUC 444	Student Teaching, Prof. Dev.[1]	3	
COGNATE	THTR 110	Intro to Theater		3
GE HUMN	HUMN ELECT	Humanities Elective		3
COGNATE	ECON 410	Economics for Educators		3
GE ELECT	FREE ELECT	Free Electives		6
			13	15

TOTAL: 130 CREDITS

[1] *Includes service-learning component.*

[2] *May be replaced by MATH 201.*

[3] *PHED – 1 credit in Movement and Dance required.*

[4] *Semesters may be reversed at the discretion of the department.*

EDUC 226 3 cr.
Secondary, Transitional and Vocational Services
The role of the special-education teacher in designing and implementing transitional and vocational services for the disabled student. Emphasis is placed upon the role of the special-education professional as an advocate for the disabled in accessing school, community, state, and federal resources.

EDUC 241 3 cr.
Foundations of Reading Instruction
A basic course in reading. It provides an introduction to reading-instruction, reading programs, and the reading process as it relates to language acquisition and learning to read. The readiness, reading skills, techniques and methods which are essential for effective reading will be examined.

EDUC 242 3 cr.
Mathematics Methods for Elementary Teaching
The course provides the Elementary Education major with planning and instructional strategies appropriate for use in the mathematics area of elementary curriculum. An analysis of content will be made in light of the needs of the elementary student and society.

EDUC 244 3 cr.
Planning Effective Elementary Instruction
(Prerequisite: EDUC 222) This course prepares the elementary major with the research-based tools and strategies required to prepare lesson and long-term planning, consistent with best practice, for exemplary instruction in the classroom. Particular attention will be paid to alignment of objectives and assessment consistent with the Pennsylvania Academic Standards.

EDUC 251 3 cr.
Development of the Early Learner
This course will be focus on the development of the early learner, birth through age eight. Psychomotor, affective and cognitive development, as well as special-needs children, will be studied. Theory to practice linkages will be stressed. An observation component is part of the course expectation.

EDUC 252 3 cr.
Assessment in Early Childhood Education
(Prerequisites: EDUC 140 and 251) This course will focus on strategies, methods, and instruments for assessing the early learner's development in the cognitive, psychomotor, and affective domains. Theory-to-practice linkages will be stressed. An observation component is part of the course expectation.

EDUC 256 3 cr.
Family and Community Relations
This course prepares the ECE teacher with the strategies and communication skills necessary to build positive relationships with colleagues within the school and agencies in the larger communities that can contribute to the well-being of each student in order to realize the full developmental potential of each child.

EDUC 258 1 cr.
Assessment Practicum
(Co-requisite: EDUC 265) Students will obtain hands-on experience in the assessment of special-needs students and adults.

EDUC 265 3 cr.
SPED Educational Assessment
This course will focus on the strategies, methods, and instruments for assessing the disabled student's development in the cognitive, psychomotor, and affective domains. Theory-to-practice linkages will be stressed. An observation component is part of the course expectation.

EDUC 267 3 cr.
Learning Disabilities
This course provides an introduction to learning disabilities. Definitions, current theories, etiological bases, and educational management of students with learning disabilities and/or hyperactivity and attention deficit are emphasized.

EDUC 280 1 cr.
Field Experience II
(Prerequisites: EDUC 121 and 180; pre- or co-requisite: EDUC 222) The course is closely associated with Educ 222. Projects will be assigned to be carried out in basic education schools and other agencies through observation, tutoring, and oral/written reports. Completed ACT 34 and Child Abuse. Application required.

ED/P 306 3 cr.
(P) Philosophy of Education
(Formerly ED/P 106) An examination of representative modern systemic philosophies of education with a critical analysis of the answers that each system of philosophy provides to the important questions concerning the nature of knowledge, value, man, and society.

EDUC 310 1-3 cr.
Special Topics in Education
A series of courses dealing with specific educational issues, theories, ideologies, skills, methods, or other designated topics for individual or

Secondary Education (Biology) Curriculum[2]

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I		1
COGNATE	BIOL 141–142	General Biology I–II	4.5	4.5
COGNATE	CHEM 112–113	General Chemistry I–II	4.5	4.5
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE FSEM	INTD 100	Freshman Seminar[1]	1	
			19	16
Second Year				
MAJOR	EDUC 280	Field Experience II	1	
COGNATE	CHEM 232–233	Organic Chemistry	3	3
COGNATE	BIOL 349	Plant Physiology		3
GE QUAN	MATH 114	Analysis I	4	
GE NSCI	PHYS 102	Earth Science		3
GE HUMN	LIT ELECT/ELECT	Literature/Humanities Electives	3	3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
GE S/BH	EDUC 222	Educational Psychology		3
GE ELECT	STAT ELECT	Statistics Elective	3	
GE PHED	PHED ELECT	Physical Education	1	
GE T/RS	T/RS 121	Theology I	3	
			18	18
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 314	Specific Subject Methods[1]		3
MAJOR	EDUC 340	Reading in Secondary Schools		3
MAJOR	EDUC 380	Field Experience III	1	
COGNATE	BIOL 250	Microbiology	5	
COGNATE	BIOL 370	Animal Behavior		4.5
COGNATE	BIOL 375	Evolution	3	
COGNATE	BIOL 361	Molecular Bio		5
GE T/RS	T/RS 122	Theology II	3	
GE HUMN	HUMN	Humanities Elective	3	
GE ELECT	BIOL 273/473	Marine or Estuarine Ecol		3
			18	18.5
Fourth Year[3]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Sec. Ed		2
MAJOR	EDUC 477	Student Teaching Instr. Sec. Ed.		3
MAJOR	EDUC 478	Student Teaching Mgmt. Sec. Ed.		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Sec. Ed.[1]		3
GE HUM	HUMN	Humanities Elect		3
COGNATE	BIOL 371	Ecology	3	
GE PHIL	PHIL 210	Ethics	3	
GE NSCI	PHYS 120	General Physics	4	
GE PHIL-T/RS	PHIL-T/RS ELECT	Elective	3	
GE PHED	PHED ELECT	Physical Education	2	
			15	16

TOTAL: 138.5 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *For a second major in Biology, an additional 6.5 credits in Biology, Organic Chem 232L and 233L, Physics 121 and 121L and 4 elective credits in Chemistry, Math or Physics are required.*

[3] *Semesters may be reversed at the discretion of the department.*

group study. Course is offered in accord with student need.

EDUC 312 3 cr.
The Secondary School Mathematics Curriculum
(Co-requisite: EDUC 313) This course examines the strategies and content of mathematics curricula in the secondary school and attempts to compare them to major contemporary reform efforts. The course includes a review of secondary-school (junior and senior high school) mathematics.

EDUC 313 3 cr.
General Methods and Planning
(Prerequisite: EDUC 222; pre- or co-requisite for EDUC 380) Methodology for setting direction in the classroom, creating a learning situation, developing the content, reinforcing and evaluating will be covered. Students will be involved with developing plans for teaching.

EDUC 314 3 cr.
Specific Subject Methods
(Prerequisite: EDUC 313) Utilizing knowledge of planning and teaching, students will be guided in the analysis of specific content and techniques for teaching that content. They will demonstrate their ability to carry out plans in "micro" teaching experiences.

EDUC 340 3 cr.
Reading in the Secondary School
This course is the study of the reading process with emphasis placed on understanding and skills needed by secondary school students in their subject fields.

EDUC 341 3 cr.
The Education of the Exceptional Child
A general view of the field; historical background – both philosophical and legislative. A survey of physical, mental, and emotional handicaps and of giftedness, along with remedial and preventive practices with a look at the future.

EDUC 342 3 cr.
Educational Media and Technology
A course in which students are expected to produce media appropriate for classroom use. The student is also expected to exhibit competency in the use of common education media equipment and the uses of computers. Students will also be introduced to modern and future forms of media technology appropriate for the classroom teacher.

EDUC 343 3 cr.
Evaluation and Measurement
This course acquaints prospective teachers with the various facets of test interpretation and test construction. Standardized achievement, diagnostic, and aptitude tests will be covered, along with teacher-made objective and essay tests. Emphasis will be placed on constructing valid and reliable tests by the teacher. The use and misuse of standardized tests and teacher-made tests will be discussed.

EDUC 344 3 cr.
Science Methods for Elementary Teaching
This course is designed to provide the Elementary Education major with planning and instructional strategies appropriate for use in the science area of the Elementary curriculum. An analysis of content and methodologies will be made in light of the needs of the elementary school, the elementary student and society.

EDUC 345 3 cr.
Language Arts Methods
The course is designed to provide the Elementary major with a knowledge of the process of a child's language acquisition. Planning for the instructional strategies used in teaching oral/written composition, grammar, listening, speaking, spelling and handwriting skills are examined.

EDUC 346 3 cr.
(D) Social-Studies Methods
The course is designed to provide the Elementary major with a knowledge of the child's needs in the social sciences and the humanities. Planning for the instructional strategies used in teaching history, geography, and economics are examined.

EDUC 347 3 cr.
Instructional Strategies for Content-Area Reading
The course is designed to introduce students to procedures to teach functional reading skills in the elementary schools. Emphasis will be placed on the specialized vocabularies, concepts and study skills which are considered necessary for the comprehension of reading materials pertinent to content-area subjects. Various resources and devices will be examined.

EDUC 348 4 cr.
Integrated Methods: Elem Math/Science
(Prerequisite: EDUC 244) This course is designed to provide the elementary education major with planning and instructional strategies

necessary for exemplary science and mathematics instruction in both distinct and integrated methods of delivery. An analysis of similarities and differences in content and standards within these disciplines will guide the study.

EDUC 349 4 cr.
Integrated Methods: Elementary Language Arts/Social Studies
(Prerequisite: EDUC 244) This course is designed to provide the elementary education major with planning and instructional strategies necessary for exemplary language arts and social studies instruction in the classroom. Attention will be paid to those strategies that might be used for integrated instruction as well as instruction of each area as separate and distinct disciplines.

EDUC 351 3 cr.
Methods Across the ECE Curriculum
This course is designed to explore methods for integrating a primary curriculum to include social-studies content, literature and language arts, as well as the expressive arts. An integrated curriculum which invites children to become involved in a variety of creative activities and learning situations will be stressed.

EDUC 352 3 cr.
ECE Methods in Math/Science/Health
This course will provide the education student with an appropriate knowledge base from which to design instructional sequences which integrate science, health and mathematics concepts for young learners.

EDUC 353 3 cr.
Math/Science/Health for Early Childhood Teaching
(Pre- or co-requisite: EDUC 242 and 344) This course will provide individuals receiving certification in both Elementary and Early Childhood Education with an appropriate knowledge base from which to design instructional sequences which integrate science, health, and mathematics concepts for young learners.

EDUC 354 4 cr.
Integrated Methods: ECE Math/Science/Health
This course, developed for the ECE Major, will provide instructional strategies necessary for instructional sequences which integrate science, health and mathematics content and experiences for young learners.

EDUC 356 4 cr.
Integrated Methods: Early Childhood Education Social Studies/Language/Expressive Arts
This course, developed for the ECE Major, will provide instructional strategies necessary for instructional sequences which integrate language arts, expressive arts and social studies content and experiences for young learners.

EDUC 362 3 cr.
Psycholinguistics
This course is designed to examine the language development in children as well as correlation between language and cognition. Particular attention will be given to designing educational environments and interactions which facilitate language development in children.

EDUC 363 3 cr.
Teaching Special Learners
(Prerequisite: EDUC 222) This course is intended to introduce those aspects of students which would qualify them as "special needs" students in physical, cognitive and/or social areas. The course will provide strategies that will enable developing teachers to provide meaningful learning experiences to all students included in their classrooms.

EDUC 364 3 cr.
(D) Inclusionary Classroom Practices
Emphasis will be placed on the special-education teacher as one member of an educational team. Students will receive guidance in supporting the disabled student in a general-education classroom, supporting the general-education teacher in providing instruction for the disabled child, and generally facilitating the acceptance and optimal learning of the disabled student in a general-education environment.

EDUC 365 3 cr.
Professional Seminar
Focuses on the special educator as one team member in a larger professional group which may include administrators, ancillary staff, parents, and other professionals. Students will learn to write IEPs, transitional plans, and school-based grant proposals. Students will receive guidance in constructing a portfolio and in case management.

EDUC 366 3 cr.
Emotional/Behavioral Disabilities
A study of the problems associated with emotional and behavioral disabilities in the classroom. Emphasis is placed on behavior manage-

Secondary Education (Chemistry) Curriculum[2]

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I		1
GE NSCI	CHEM 112–113	General Analytical Chem I–II	4.5	4.5
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE QUAN	MATH 114	Analysis I	4	
GE PHIL	PHIL 120	Introduction to Philosophy	3	
GE HUMN	LIT ELECT	Literature Elective		3
GE ELECT	MATH 221	Analysis II		4
FSEM	INTD 100	Freshman Seminar1	1	
			18.5	18.5
Second Year				
MAJOR	EDUC 280	Field Experience II		1
COGNATE	CHEM 232–233	Organic Chemistry I–II	4.5	4.5
COGNATE	PHYS 140–141	General Physics I–II	4	4
COGNATE	CHEM 240	Inorganic Chemistry		3
GE PHIL	PHIL 210	Ethics		3
GE T/RS	T/RS 121–122	Theology I–II	3	3
GE S/BH	EDUC 222	Educational Psychology	3	
GE ELECT	MATH 222	Analysis III	4	
			18.5	18.5
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 314	Specific Subject Methods[1]		3
MAJOR	EDUC 340	Reading in Secondary Schools		3
MAJOR	EDUC 380	Field Experience III	1	
COGNATE	CHEM 362-363	Physical Chemistry I-II	4.5	4.5
COGNATE	CHEM 344	Environmental GeoChem		3
COGNATE	BIOL 141	General Biology	3	
COGNATE	CHEM 370	Instrumental Analysis		5
GE HUMN[1]	HUMN	Humanities Elective	3	
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE PHED	PHED ELECT	Physical Education	1	
			18.5	18.5
Fourth Year[3]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Sec. Ed		2
MAJOR	EDUC 477	Student Teaching Instr. Sec. Ed.		3
MAJOR	EDUC 478	Student Teaching Mgmt. Sec. Ed.		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Sec. Ed.[1]		3
COGNATE	CHEM 440	Advanced Inorganic	3	
COGNATE	CHEM 350	General Biochem I	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Open Electives	3	
GE PHED	PHED ELECT	Physical Education	2	
			14	13

TOTAL: 138 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *For a second major in Chemistry, the following are required: CHEM 330, 390, 391, 440L,493 and 494*

[3] *Semesters may be reversed at the discretion of the department.*

Secondary Education (Citizenship with History) Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	HIST 110–111	U.S. History I–II	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN/STAT	MATH ELECT–STAT ELECT	Mathematics Elect–Statistics Elective	3	3
GE T/RS	T/RS 121	Theology I		3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
FSEM	INTD 100	Freshman Seminar[1]	1	
GE NSCI	ELECT	Natural Science Elective		3
GE PHED	PHED ELECT	Physical Education	1	
			18	18
Second Year				
MAJOR/GE/ S/BH	EDUC 222–280	Educational Psych.–Field Exp. II	3	1
COGNATE	GEOG 134	World Regional Geography		3
COGNATE	HIST 140	Craft of the Historian	3	
COGNATE	PS 130–131	Am. Nat. Government I–II	3	3
GE HUMN	LIT ELECT	Literature Elective	3	
GE PHIL	PHIL 120	Introduction to Philosophy		3
GE HUMN	HIST 120–121	European History I–II	3	3
GE NSCI	ELECT	Natural Science Elective		3
GE ELECT	PS 135	State and Local Government	3	
GE PHED	ELECT	Physical Education		1
			18	17
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 380–314	Field III–Specific Subj. Methods[1]	1	3
MAJOR	EDUC 340	Reading in Secondary Schools		3
COGNATE	HIST 219	Modern World History	3	
COGNATE	HIST 214	World Politics		3
COGNATE	ELECT	History Elective	3	3
COGNATE	ELECT	Minority History	3	
GE PHIL	ED/P 306	Philosophy of Education		3
GE T/RS	T/RS 122	Theology II	3	
GE ELECT	PS 212	International Relations		3
GE PHED	PHED	Physical Education	1	
			17	18
Fourth Year[4]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Secondary		2
MAJOR	EDUC 477	Student Teaching Instr. Secondary		3
MAJOR	EDUC 478	Student Teaching Mgmt. Secondary		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Secondary[1]		3
COGNATE	ELECT	History Electives	6	
GE PHIL	PHIL 210	Ethics	3	
GE HUMN	HUMN	Humanities Elective[2]	3	
GE ELECT	ECO 410	Economics for Education Majors	3	
GE ELECT	HIST 490 or 491	Seminar in History[3]	3	
			18	13

TOTAL: 137 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[3] *Students may substitute a 300- or 400-level course with permission of the History Department Chair.*

[4] *Semesters may be reversed at the discretion of the department.*

ment and appropriate learning strategies for inclusionary general-education classes, self-contained special-education classes, and residential placements.

EDUC 367 3 cr.
Designing Curriculum for Elementary Special Education
Emphasis is on the effective design and use of curriculum and materials to educate elementary students with special needs.

EDUC 368 3 cr.
Designing Secondary Special Education
Emphasis is on the effective design and use of curriculum and materials to educate secondary students with special needs.

EDUC 369 3 cr.
Early Assessment and Intervention
This course will focus on the development of the early learner, birth through age eight, along with appropriate assessment and intervention techniques for children falling under the IDEA.

EDUC 380 1 cr.
Field Experience III
(Prerequisites: EDUC 244, 280. Pre- or co- requisite EDUC 313) This course will be closely associated with the methods courses. An emphasis is placed on studying teaching techniques and involvement in teacher activities in basic-education schools. Application required.

EDUC 440, 441, 442, 443 and 444 must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.

EDUC 440 3 cr.
Professional Practice Seminar
In-depth study of the rationale, theories, and techniques for creating a situation where learning can take place and for handling specific individual and group behavior problems in productive ways.

EDUC 441* 2 cr.
Planning in Elementary Student Teaching
Preparation of actual teaching plans during elementary student teaching. Application required.

EDUC 442 3 cr.
Instruction in Elementary Student Teaching
Involvement in implementing methods and techniques. Elementary-school student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 443 2 cr.
Managing Elementary Classrooms in Student Teaching
Involvement in the management of learning situations during elementary student teaching.

EDUC 444 3 cr.
Professional Growth in Elementary Student Teaching
The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relate to others. This will include attendance at and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems.

EDUC 451* 5 cr.
Early Childhood Education Student Teaching
This course is a high-intensity practicum a pre-K classroom. Assignment by the Education Department requires completion of an application process. Attendance at weekly seminars is also required. This course must be preceded by or be followed by Elementary Student Teaching if state certification is being pursued. A grade of C or higher is required for endorsement of certification applications.

EDUC 440, 456, 457, 458 and 459 must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.

EDUC 456 2 cr.
Planning in Early Childhood Student Teaching
Preparation of actual teaching plans during secondary student teaching. Application required.

EDUC 457 3 cr.
Instruction in Early Childhood Student Teaching
Involvement in implementing methods and techniques. Secondary student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 458 2 cr.
Managing Classrooms in Early Childhood Student Teaching
Involvement in the management of learning situations during secondary student teaching.

**Student teaching requires an application due March 1 or October 1 for fall and spring placements, respectively.*

EDUC 459 3 cr.
Professional Growth in Early Childhood Student Teaching
The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relate to others. This will include attendance and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems.

EDUC 461, 462, 463 and 464 must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.

EDUC 461* 2 cr.
Planning in Special Education Student Teaching
Preparation of actual teaching plans during special-education student teaching. Application required.

EDUC 462 3 cr.
Instruction in Special Education Student Teaching
Involvement in implementing methods and techniques. Special-education student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 463 2 cr.
Managing Special Education Student Teaching Instruction
Involvement in the management of learning situations during special-education student teaching.

EDUC 464 3 cr.
Professional Growth in Special-Education Student Teaching
The demonstration of professional growth during srudent teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relare to others. This will include attendance at and participation in a weekly seminar to analyze and discuss professional considerations and srudent-teaching problems.

EDUC 475, 476, 477, 478 and 479 must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.

EDUC 475 3 cr.
Secondary Classroom Management and Discipline
In-depth study of the rationale, theories, and techniques for creating a situation where learning can take place and for handling specific individual and group behavior problems in productive ways.

EDUC 476* 2 cr.
Planning in Secondary Student Teaching
Preparation of actual teaching plans during secondary student teaching. Application required.

EDUC 477 3 cr.
Instruction in Secondary Student Teaching
Involvement in implementing methods and techniques. Secondary student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 478 2 cr.
Managing Classrooms in Secondary Student Teaching
Involvement in the management of learning situations during secondary student teaching.

EDUC 479 3 cr.
Professional Growth in Secondary Student Teaching
The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relate to others. This will include attendance and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems.

**Student teaching requires an application due March 1 or October 1 for fall and spring placements, respectively.*

Secondary Education (Citizenship with Political Science) Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	HIST 110–111	U.S. History I–II	3	3
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN/STAT	MATH ELECT–PS 240	Mathematics Elect–PS Statistics	3	3
GE T/RS	T/RS 121	Theology I		3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
FSEM	INTD 100	Freshman Seminar[1]	1	
GE NSCI	ELECT	Natural Science Elective		3
			17	18
Second Year				
MAJOR/GE/ S/BH	EDUC 222–280	Educational Psych.–Field Exp. II	3	1
COGNATE	GEOG 134	World Regional Geography		3
COGNATE	PS ELECT	Political Science Elective	3	
COGNATE	PS 130–131	Am. Nat. Government I–II	3	3
GE HUMN	LIT ELECT	Literature Elective	3	
GE PHIL	PHIL 120	Introduction to Philosophy		3
GE HUMN	HIST 120–121	European History I–II	3	3
GE NSCI	ELECT	Natural Science Elective		3
GE ELECT	PS 135	State and Local Government	3	
GE PHED	ELECT	Physical Education	1	
			18	17
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 380–314	Field III–Specific Subj. Methods[1]	1	3
MAJOR	EDUC 340	Reading in Secondary Schools		3
COGNATE	PS 313 or 314	Political Ideas	3	
COGNATE	PS 217	Comparative Politics		3
COGNATE	ELECT	PS Electives	3	6
GE PHIL	ED/P 306	Philosophy of Education	3	
GE T/RS	T/RS 122	Theology II	3	
GE ELECT	PS 212	International Relations		3
GE PHED	PHED	Physical Education	2	1
			18	18
Fourth Year[3]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Secondary		2
MAJOR	EDUC 477	Student Teaching Instr. Secondary		3
MAJOR	EDUC 478	Student Teaching Mgmt. Secondary		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Secondary[1]		3
COGNATE	ELECT	PS Electives	6	
GE PHIL	PHIL 210	Ethics	3	
GE HUMN	HUMN	Humanities Elective[2]	3	
GE ELECT	ECO 410	Economics for Education Majors	3	
			15	13

TOTAL: 134 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[3] *Semesters may be reversed at the discretion of the department.*

Secondary Education (Communication) Curriculum[2]

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	COMM 110 or 120	Interpersonal Comm/Mass Comm		3
COGNATE	COMM 115	Writing for Communication		3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN	ELECT	Quant. Reasoning Elective		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE ELECT	ENGL 140	English Inquiry	3	
GE S/BH	PSYC 110	Fundamentals of Psychology		3
FSEM	INTD 100	Freshman Seminar[1]	1	
			17	18
Second Year				
MAJOR	EDUC 222–280	Educational Psychology–Field II	3	1
COGNATE	COMM ELECT	Communication Elective[3]	3	
COGNATE	COMM ELECT	Communication Elective[3]		3
COGNATE	ENGL LT	British Literature Elective	3	
GE T/RS	T/RS 122	Theology II		3
GE HUMN	ENGL	American Lit. Elective		3
GE ELECT	WRTG 210	Advanced Composition	3	
GE NSCI	PSYC 105	Brain & Human Nature	3	3
GE QUAN	STAT ELECT	Statistics Electives	3	
GE ELECT	COMM 210	Logical & Rhetorical Analysis		
GE HUMN	COMM 215	Intro to Communication Theory		3
GE PHED	PHED ELECT	Physical Education		2
			18	18
Third Year				
MAJOR	EDUC 313–380	General Methods and Planning–Field III	3	1
MAJOR	EDUC 314	Specific Subject Methods[1]		3
MAJOR	EDUC 340	Reading in Secondary Schools		3
MAJOR	EDUC 362	Psycholinguistics	3	
COGNATE	ENLT 460	Comm. Elective	3	
COGNATE	COMM 316	Communication Ethics	3	
COGNATE	COMM ELECT	Communication Elective[3]	3	3
GE HUMN	EDUC 341	Educ. of Except. Child		3
GE ELECT	LIT or ENGL	Minority Literature/Theatre Elective	3	3
GE PHED	PHED ELECT	Physical Education		1
			18	17
Fourth Year[4]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Sec. Ed		2
MAJOR	EDUC 477	Student Teaching Instr. Sec. Ed.		3
MAJOR	EDUC 478	Student Teaching Mgmt. Sec. Ed.		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Sec. Ed.[1]		3
COGNATE	COMM 415	Communication Senior Seminar	3	
COGNATE	ELECT	Communication Elective	3	
GE PHIL	PHIL 210	Ethics	3	
GE PHIL	ED/P 306	Philosophy of Education	3	
GE	EN LT 462	Literacy Critic	3	
	WORLD LIT ELECT	World Literacy Elective	3	
			18	13

TOTAL: 137 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *The course configuration allows for a minor in English with careful planning. It is the student's responsibility to plan for a minor if one is desired.*

[3] *The following classes are recommended – but not required – as options for elective choices: COMM 211: Argument and Debate, COMM 214: Small-Group Communication, COMM 228: Intercultural Communication, COMM 224: Newswriting.*

[4] *Semesters may be reversed at the discretion of the department.*

Secondary Education (English) Curriculum[2]

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1 or	1
COGNATE	ENLT 140	English Inquiry	3	
COGNATE	ELECT	ENLT Area Requirement		3
WRTG–COGNATE	WRTG 107–ELECT	Composition–Theatre Elective	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE QUAN	ELECT	Quant. Reasoning Elective	3	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
FSEM	INTD 100	Freshman Seminar[1]	1	
GE PHED	PHED ELECT	Physical Education		1
			16-17	16-17
Second Year				
MAJOR	EDUC 222–280	Educational Psychology–Field II	3	1
COGNATE	ELECT	ENLT Area Requirement	3	
COGNATE	ELECT	ENLT Area Requirement	3	
COGNATE	ENLT 220 or 341	Shakespeare Elective		3
GE SPCH	COMM 100	Public Speaking		3
GE PHIL	PHIL 210	Ethics	3	
GE ELECT	WRTG 211 or 218	Advanced Writing Elective		3
GE HUMN	HUMN	Rep. World Literature		3
GE NSCI	NSCI	Natural Science Electives	3	3
GE PHED	PHED ELECT	Physical Education		1
GE ELECT	STAT ELECT	Statistics Elective	3	
			18	17
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 314	Specific Subject Methods[1]		3
MAJOR	EDUC 340	Reading in Secondary Schools	3	
MAJOR	EDUC 380	Field Experience III	1	
COGNATE	WRTG 310	Strategies for Teaching Writing	3	
MAJOR	EDUC 362	Psycholinguistics		3
COGNATE	ELECT	ENLT Area Requirements	3	3
GE T/RS	T/RS 122	Theology II	3	
GE HUMN	HUMN	ENLT Area Requirements		3
GE HUMN	HUMN	Minority Lit. Elect.		3
GE PHED	PHED	Physical Education	1	
GE ELECT	EDUC 341	Ed Exceptional Child		3
			17	18
Fourth Year[4]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary	3	
MAJOR	EDUC 476	Student Teaching Plan Sec. Ed	2	
MAJOR	EDUC 477	Student Teaching Instr. Sec. Ed.	3	
MAJOR	EDUC 478	Student Teaching Mgmt. Sec. Ed.	2	
MAJOR	EDUC 479	Student Teaching Pro. Dev. Sec. Ed.[1]	3	
COGNATE	ENLT ELECT	Open Elective[3]	3	
COGNATE	ENLT 490 or 491	Senior Seminar		3
GE PHIL	ED/P 306	Philosophy of Education		3
GE ELECT	ELECT	Open Elective		3
GE ELECT	ELECT	Open Elective		3
			13	15

TOTAL: 131 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Secondary Education/English majors will complete a second major in English. English majors at The University of Scranton are required to take at least four courses in British literature and at least two in American literature. These appear above as "Area Requirements"; for further details, students should see page 129 and/or consult their English Department advisors.*

[3] *Students who have not already done so must complete the English Department's Theory Intensive Requirement.*

[4] *Semesters may be reversed at the discretion of the department.*

Secondary Education (General Science) Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121–180	Foundations of Education–Field I	3	1
COGNATE	BIOL 141–42	General Biology I–II	4.5	4.5
GE SPCH	COMM 100	Public Speaking	3	
GE WRTG	WRTG 107	Composition	3	
GE C/IL	C/IL 102	Computing and Information Literacy	3	
GE QUAN	MATH 114	Analysis I		4
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE HUMN	LIT ELECT	Literature Elective		3
FSEM	INTD 100	Freshman Seminar[1]	1	
GE PHED	PHED ELECT	Physical Education	1	
			18.5	18.5
Second Year				
MAJOR	EDUC 280	Field Experience II	1	
COGNATE	PHYS 120–121	General Physics I–II	4	4
COGNATE	CHEM 112–113	General/Analytical Chemistry I–II	4.5	4.5
GE PHIL	PHIL 210	Ethics	3	
GE T/RS	T/RS 122	Theology II	3	
GE S/BH	PSYC 110	Fundamentals of Psychology		3
GE HUMN	ELECT	Humanities Electives	3	3
COGNATE	STAT ELECT	Statistics Elective	3	
			18.5	17.5
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 380–314	Field III–Specific Subject Methods[1]	1	3
MAJOR	EDUC 340	Reading in Secondary Schools		3
COGNATE	COGNATE ELECT	Environmental Context	3	
COGNATE	COGNATE ELECT	Technological Context	3	
GE ELECT	PHIL 431	Philosophy of Science	3	
GE NSCI	PHYS 101–102	Modern Astronomy–Earth Science	3	3
GE S/BH	EDUC 222	Educational Psychology	3	
GE ELECT	PHIL 432	Philosophy of Technology		3
GE PHED	PHED ELECT	Physical Education		2
			16	17
Fourth Year[2]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Sec. Ed		2
MAJOR	EDUC 477	Student Teaching Instr. Sec. Ed.		3
MAJOR	EDUC 478	Student Teaching Mgmt. Sec. Ed.		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Sec. Ed.[1]		3
COGNATE	ELECT	Environmental Context	3	
COGNATE	CHEM 104	Science and Society	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	ELECT	Open Electives	6	
GE PHIL/T/RS	ELECT	Open Electives	3	
			18	13

TOTAL: 137 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Semesters may be reversed at the discretion of the department.*

Secondary Education (Latin) Curriculum[2]

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*		*Spr. Cr.*
First Year					
MAJOR	EDUC 121	Foundations of Education	3		
MAJOR	EDUC 180	Field Experience I	1	or	1
COGNATE	LAT 211–212	Intermediate Latin I–II	3		3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3		3
GE C/IL	C/IL 102	Computing and Information Literacy			3
GE QUAN	MATH ELECT	Quant. Reasoning Course	3		
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3		3
GE S/BH	PSYC 110	Fundamentals of Psychology			3
FSEM–PHED	INTD 100–PHED ELECT	Freshman Seminar[1]–Physical Education	1		1
			16-17		16-17
Second Year					
MAJOR	EDUC 280	Field Exp. II			1
COGNATE	ELECT	Latin Electives	6		6
GE PHIL	T/RS 122	Theology II			3
GE HUMN	LIT ELECT	Lit. Elect/Hum. Elect	3		3
GE NSCI	NSCI	Natural Science Electives	3		3
GE S/BH	EDUC 222	Educational Psychology	3		
GE PHED	PHED ELECT	Physical Education			1
GE ELECT	STAT ELECT	Statistics Elective	3		
			18		17
Third Year					
MAJOR	EDUC 313	Genetal Methods and Planning	3		
MAJOR	EDUC 380–314	Field III–Specific Subj. Methods[1]	1		3
MAJOR	EDUC 340	Reading in Secondary Schools			3
COGNATE	ELECT	Latin Electives	6		6
COGNATE	ELECT	Related Electives			3
GE PHIL	ED/P 306	Philosophy of Education			3
GE ELECT	SOC 234	Cultural Anthropology	3		
GE ELECT	ELECT	Open Elective	3		
GE PHED	PHED ELECT	Physical Education	1		
			17		18
Fourth Year[3]					
MAJOR	EDUC 475	Classroom Mgmt. Secondary			3
MAJOR	EDUC 476	Student Teaching Plan Secondary			2
MAJOR	EDUC 477	Student Teaching Instr. Secondary			3
MAJOR	EDUC 478	Student Teaching Mgmt. Secondary			2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Secondary[1]			3
COGNATE	ELECT	Latin Elective	3		
COGNATE	ELECT	Related Elective	3		
GE HUMN	HUMN	Humanities Elective	6		
GE PHIL	PHIL 210	Ethics	3		
GE ELECT	ELECT	Latin Elective	3		
			18		13

TOTAL: 134 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Program results in a second major in Latin.*

[3] *Semesters may be reversed at the discretion of the department.*

Secondary Education (Math) Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121–180	Foundations of Education–Field I	3	1
GE HUMN	HUMN ELECT	Humanities Elective	3	
COGNATE	MATH 114	Analysis I		4
COGNATE	MATH 142	Discrete Structures	4	
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE ELECT	CMPS 134	Computer Science I		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
FSEM	INTD 100	Freshman Seminar[1]–Physical Education	1	1
			17	18
Second Year				
GE SB/H	EDUC 222–280	Educational Psychology–Field II	3	1
COGNATE	MATH 221–222	Analysis II–III	4	4
GE T/RS	T/RS 122	Theology II		3
GE HUMN	LIT ELECT	Literature Elective	3	
GE NSCI	PHYS 140/PHYS 141	Elem. of Physics I–II	4	4
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
COGNATE	MATH 351	Linear Algebra		3
GE PHED	PHED ELECT	Physical Education	1	1
			18	16
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 380–314	Field III–Specific Subject Methods[1]	1	3
MAJOR	EDUC 340	Reading in Secondary Schools		3
MAJOR	EDUC 312	Secondary Math Curriculum	3	
COGNATE	MATH 312	Probability Theory		3
COGNATE	MATH 345 OR MATH 325	Geometry OR History/Phil. of Mathematics	3	
COGNATE	MATH 446 OR MATH 448[2]	Real Analysis I OR Mod. Algebra I	3	
COGNATE	MATH ELECT	Math Elective (Upper Division)		3
GE HUMN	HUMN ELECT	Humanities Elective		3
COGNATE	MATH 447 or 449	Real Analysis II OR Modern Algebra II		3
COGNATE	MATH ELECT	Math Elective (Upper Division)	3	
			16	18
Fourth Year[3]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Sec. Ed		2
MAJOR	EDUC 477	Student Teaching Instr. Sec. Ed.		3
MAJOR	EDUC 478	Student Teaching Mgmt. Sec. Ed.		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Sec. Ed.[1]		3
GE PHIL	PHIL 210	Ethics	3	
COGNATE	MATH 446 or 448	Real Analysis I OR Mod. Alg. I[2]	3	
COGNATE	MATH ELECT	Math Elective (Upper Division)	3	
COGNATE	MATH 345 or MATH 325	Geometry OR History/Phil. of Mathematics	3	
GE PHIL	ED/P 306	Philosophy of Education	3	
GE HUMN	ELECT	Humanities Elective	3	
			18	13

TOTAL: 134 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Real Analysis I should be taken the fall of the junior year in odd-numbered years; Modern Algebra I should be taken in the fall of the junior year in even-numbered years.*

[3] *Semesters may be reversed at the discretion of the department.*

Secondary Education (Modern Language) Curriculum[3]

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121	Foundations of Education	3	
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	MLANG 211–212	Intermediate Mod Lang	3	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE HUMN	HUMN	Humanities Elective		3
GE QUAN	ELECT	Quant. Reasoning Elective	3	
GE T/RS-PHIL	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
FSEM	INTD 100	Freshman Seminar[1]	1	
			17	18
Second Year				
MAJOR	EDUC 280	Field Exp. II		1
COGNATE	MLANG 311–312[2]	Advanced Comp./Conv. I–II	3	3
COGNATE	COGNATE ELECT	Related Electives	3	3
GE PHIL	T/RS 122	Theology II	3	
GE HUMN	LIT/HUMN ELECT	Lit.Elect/Hum. Elect	3	3
GE NSCI	NSCI	Natural Science Elective		3
GE S/BH	EDUC PSYC	Educational Psychology		3
GE HUMN	HUMN	Humanities Elective	3	
GE ELECT	STAT ELECT	Statistics Elective	3	
GE PHED	PHED ELECT	Physical Education		1
			18	17
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 380–314[4]	Field III–Specific Subj. Methods[1]	4	
MAJOR	EDUC 340	Reading in Secondary Schools		3
COGNATE	MLANG 321–322[5]	Stylistics I–II	3	3
COGNATE	COGNATE ELECT	Modern Language Electives[6]	3	6
GE NSCI	NSCI	Natural Science Elective		3
GE HUMN	ELECT	Humanities Elective		3
GE ELECT	SOC 234	Cultural Anthropology	3	
GE PHED	PHED	Physical Education	2	
			18	18
Fourth Year[7]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Secondary		2
MAJOR	EDUC 477	Student Teaching Instr. Secondary		3
MAJOR	EDUC 478	Student Teaching Mgmt. Secondary		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Secondary[1]		3
COGNATE	ELECT	Modern Language Elective[6]	9	
GE PHIL	ED/P 306	Philosophy of Education	3	
GE PHIL	PHIL 210	Ethics	3	
GE ELECT	ELECT	Related Elective	3	
			18	13

TOTAL: 135 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Spanish, French or German should be selected as a specialization within Modern Language (MLANG). Program results in a second major in the area of the modern language chosen.*

[3] *All Secondary Education MLANG Majors are strongly encouraged to study abroad for a period of at least one semester.*

[4] *Before enrolling in EDUC 314, students are required to pass a proficiency exam at the intermediate-high level.*

[5] *Students whose specialization within Modern Languages is Spanish are required to take SPAN 320, and SPAN 321 and three of the following: SPAN 313, SPAN 314, SPAN 330 and/or SPAN 331. In Spanish, there is no Advanced Stylistics II.*

[6] *Students who begin language study at the advanced level (311) will take 6 credits in advanced MLANG electives.*

[7] *Semesters may be reversed at the discretion of the department.*

Secondary Education (Physics) Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 121–180	Foundations of Education–Field I	3	1
COGNATE	PHYS 140–141	Elements of Physics I–II	4	4
COGNATE	MATH 221	Analysis II		4
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE C/IL	MATH 114	Analysis I	4	
GE QUAN	C/IL 102	Computing and Information Literacy	3	
GE PHIL	PHIL 120	Intro. Philosophy		3
GE HUMN	LIT ELECT	Literature Elective		3
FSEM	INTD 100	Freshman Seminar[1]	1	
			18	18
Second Year				
MAJOR	EDUC 280	Field Exp. II		1
COGNATE	MATH 222	Analysis III	4	
COGNATE	PHYS 270	Modern Physics	4	
COGNATE	PHYS 102	Earth Science		3
COGNATE	PHYS 352	Stat Thermo		3
GE ELECT	MATH 341	Differential Equations		3
GE PHIL	PHIL 210	Ethics		3
GE T/RS	T/RS 121–122	Theology I–II	3	3
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE S/BH	EDUC 222	Educational Psych.	3	
GE PHED	PHED ELECT	Physical Education		1
			17	17
Third Year				
MAJOR	EDUC 313	General Methods and Planning	3	
MAJOR	EDUC 380–314	Field III–Specific Subj. Methods[1]	1	3
MAJOR	EDUC 340	Reading in Secondary Schools		3
COGNATE	PHYS 447–448	Electromagnetics I–II	3	4
COGNATE	EE 241	Circuits		4
GE ELECT	PHYS 350	Applied & Engineering Math		3
GE NSCI	BIOL 101	Gen. Biology I	3	
GE ELECT	CHEM 100	General Chemistry	3	
GE ELECT	PHYS 372	Atomic/Laser Physics		3
GE PHED	PHED ELECT	Physical Education	1	1
			17	18
Fourth Year[2]				
MAJOR	EDUC 475	Classroom Mgmt. Secondary		3
MAJOR	EDUC 476	Student Teaching Plan Secondary		2
MAJOR	EDUC 477	Student Teaching Instr. Secondary		3
MAJOR	EDUC 478	Student Teaching Mgmt. Secondary		2
MAJOR	EDUC 479	Student Teaching Pro. Dev. Secondary[1]		3
GE HUMN	HUMN ELECT	Humanities Electives	3	
COGNATE	PHYS ELECT	Physics Electives	3	
COGNATE	ENGR 250	Statics	3	
COGNATE	PHYS 371	Advanced Mechanics	3	
GE HUMN	HUMN ELECT	Humanities Electives	6	
GE PHIL-T/RS ELECT	PHIL-T/RS ELECT	Philosophy or T/RS elective	3	
			18	16

TOTAL: 139 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Semesters may be reversed at the discretion of the department.*

Special Education Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	EDUC 180	Field Experience I	1	
COGNATE	EDUC 121	Foundations of Education	3	
COGNATE	EDUC 341	Educ. of Exceptional Child	3	
GE QUAN	MATH ELECT	Quant. Reasoning Course		3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE NSCI	PSYC 106	Drugs and Behavior		3
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE S/BH	PSYC 221	Childhood and Adolescence		3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3	3
GE–FSEM	INTD 100	Freshman Seminar[1]	1	
			17	18
Second Year				
MAJOR	EDUC 280	Field Experience II		1
MAJOR	EDUC 265	SPED Educational Assessment		3
MAJOR	EDUC 258	Assessment Practicum		1
GE HUMN	ELECT	Humanities Elective		3
MAJOR	EDUC 267	Learning Disabilities	3	
COGNATE	EDUC 222	Educational Psychology	3	
GE ELECT	STAT ELECT	Statistics Elective	3	
COGNATE	CHS 241	Case Management & Interviewing		3
COGNATE	EDUC 241	Foundations of Reading Inst.[1]	3	
COGNATE	PSYC 225	Abnormal Psychology	3	
GE NSCI	PSYC 231/PSYC 105	Behavioral Neurosci./Brain & Human Nature		3
GE PHIL	PHIL 210	Ethics	3	
GE PHED	PHED ELECT	Physical Education		1
			18	15
Third Year				
MAJOR	EDUC 380	Field Experience III		1
MAJOR	EDUC 369	Early Assessment & Intervention	3	
MAJOR	EDUC 367	Designing Curriculum for Elem. SPED	3	
MAJOR	EDUC 368	Designing Curriculum for Elem. SPED		3
MAJOR	EDUC 364	Inclusionary Classroom Practices[1]	3	
MAJOR	EDUC 366	Emotional & Behavioral Disabilities		3
COGNATE	EDUC 342	Educational Media/Tech.	3	
MAJOR	EDUC 226	Sec. Transitional & Voc. Services		3
COGNATE	CHS 322–333	Mental Retardation–Multiculturalism in HS	3	3
GE ELECT	ENGL 130 OR EDUC 131	Children's Lit. or Exp. Cult. Div. Child Lit.	3	
GE PHED	PHED ELECT	Physical Education		1
GE T/RS	T/RS 122	Theology II		3
			18	17
Fourth Year[2]				
MAJOR	EDUC 365	Professional Seminar		3
MAJOR	EDUC 461	Planning in SPED Student Teaching		2
MAJOR	EDUC 462	Instruction in SPED Student Teaching		3
MAJOR	EDUC 463	Managing SPED Instruction		2
MAJOR	EDUC 464	Professional Growth in SPED[1]		3
COGNATE	CHS	Physical Disabilities	3	
GE HUMN	ELECT	Humanities Elective	9	
GE PHIL	ED/P 306	Philosophy of Education	3	
PHED	PHED ELECT	Physical Education	1	
			16	13

TOTAL: 132 CREDITS

[1] *Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.*

[2] *Semesters may be reversed at the discretion of the department.*

EXERCISE SCIENCE AND SPORT

Faculty

Gary N. Wodder, Ph.D., *Chair*
Robert M. Bessoir, M.Ed.
Ronald W. Deitrick, Ph.D., *Program Director of Exercise Science*
Curt Dixon, Ph.D.
David A. Hair, M.Ed.
John S. Hopkins, M.S.
Stephen L. Klingman, M.S.
John B. Robertson, M.A.
J. Michael Strong, M.S.

Overview

The Department of Exercise Science and Sport consists of three areas: a major in Exercise Science, a minor in Coaching and physical education activity classes.

Exercise Science Major

Exercise Science is the study of human movement as related to exercise, sport, and physical activity. It is dedicated to promoting and integrating scientific research and education on the effects and benefits of exercise, and to the delivery of physical-activity programs that prevent disease, facilitate rehabilitation, promote health, and enhance human performance. Exercise Science is part of the field of Sports Medicine which also includes clinical areas of study. The scientific aspects of Sports Medicine include exercise physiology, biochemistry of exercise, and biomechanics. Testing of maximal oxygen consumption and lactic acid metabolism, analysis of muscle fatigue, research on muscle hypertrophy and bone density, measurement of body composition, and benefits of exercise in cardiovascular disease, diabetes and weight control are a few of the many contributions made by exercise scientists to Sports Medicine.

Few academic program majors offer such diverse opportunities after graduation as Exercise Science. The academically rigorous curriculum prepares graduates with knowledge and experience for employment opportunities in a variety of settings. In the applied health area, careers in corporate and community/hospital-based wellness programs, cardiopulmonary rehabilitation, and research centers investigating the benefits of exercise in spinal-cord injury are possibilities. Sports physiologist and strength and conditioning specialists for sports teams are also career options.

Exercise Science is an excellent option for students interested in applying to graduate health-profession programs such as osteopathic medicine, physical therapy, physician assistant, and clinical exercise physiology. Additional required course work to meet entry requirements can be chosen as electives. In this regard, students should make their career intentions known early in their program of study. Opportunities for graduate study are available in academic units of medicine, biology, physiology, and exercise science. Although not required, completion of the program provides students with the ability to take different certification exams offered by several professional organizations including the American College of Sports Medicine.

In order to graduate, Exercise Science majors must maintain an overall 2.5 GPA in major courses and an overall GPA of 2.0 in cognate courses. Students receiving a grade less than C- in any major or cognate course must repeat the course and earn a C- or better grade in that course. Completion of the service-learning requirements (20 hours per academic year) of the College of Professional Studies is also a requirement for graduation.

Coaching Minor

The 17-credit Coaching minor is based on the American Sport Education Program (ASEP) and will help meet the needs of those who wish to coach and work more effectively with young athletes from youth through interscholastic sports.

The course Introduction to PHED 160: Coaching (1 cr.), is a suggested prerequisite for the 3-credit courses.

Physical Education

The Physical Education program seeks to improve the physical-fitness levels of each student, introduce new activities, or improve and increase students' recreational skills through our offerings of over 30 different courses. Emphasis is placed on instruction in a variety of popular sports and recreational activities, especially those with carry-over value for post-college years.

Every regularly enrolled student must satisfy the 3-credit Physical Education requirement unless excused by the Department. It is possi-

ble to be excused from Physical Education classes by application to the Department if (a) a physician certifies that a student, for medical reasons, should not engage in vigorous physical activity; (b) the Department deems it advisable; (c) the student is a veteran. Grading is (S) Satisfactory or (U) Unsatisfactory.

There are a variety of formats for the Physical Education classes: one-half semester for .5 credit, three times per week for 1 credit, two times per week for 1 credit, and one time per week for 1 credit. Students may select from among the following: tennis, yoga, skiing, soccer, racquetball, weight training, aerobics, hapkido, volleyball, running, karate, self-defense for women, advanced life-saving, water-safety instructor, jazz dance, golf, tai chi, badminton, wellness, latin and swing dance, cardio fitness, beginning/intermediate swimming, fitness swimming, first aid/CPR/AED, karate, wellness, white water rafting and judo.

Course Descriptions

Exercise Science

EXSC 210 **3 cr.**
Sports Physiology
(Prerequisite: BIOL 110) This course explores the physiological principles and systems underlying sport performance – aerobic and anaerobic energy, oxygen transport, and muscular and cardiovascular systems. Students will learn how to apply the principles to improve human performance.

EXSC 212 **3 cr.**
Nutrition in Exercise and Sport
(Prerequisites: EXSC 210 or BIOL 347, CHEM 112-113 or permission of instructor) Role of nutrients in optimizing human performance. Consideration of caloric and nutrient exercise requirements, gender-specific needs, weight loss/eating disorders, and nutritional ergogenic aids. *Includes service-learning component.*

EXSC 220 **3 cr.**
Nutrition for the Health Professions
(Prerequisites: BIOL 110-111, CHEM 110 or112; pre- or co-requisite: CHEM 111 or 113) Focus on concepts of nutrition, including chemistry, digestion absorption and metabolism of nutrients. Exploration of the role of diet in chronic illness. Basic nutrition concepts applied to the needs of individuals across the life span, families, and communities.

EXSC 229 **3 cr.**
Applied Anatomy and Kinesiology
(Prerequisites: BIO 110-111 and EXSC 210) This course is designed to provide the student with basic scientific information and an understanding of human motion within the areas of anatomy and neuromuscular physiciology. *Includes service-learning component.*

EXSC 313 **3 cr.**
Biomechanics of Sport and Exercise
(Prerequisites: BIO 110-111, PYYS 120-121 and EXSC 219) This course introduces the student to the concepts and principles of biomechanics as they relate to sport and exercise.

EXSC 375 **3 cr.**
Exercise Testing/Programming for Health and Performance
(Prerequisites: EXSC 210, major in EXSC or permission of instructor) Provides knowledge related to Graded Exercise Testing and counseling, including purposes, basic exercise ECG, energy costs of exercise, principles of exercise prescription, special populations, and case study.

EXSC 380 **3 cr.**
Internship in Exercise Science
(Prerequisites: EXSC 375; majors only) The application of Exercise Science principles, knowledge and skills in a supervised setting. Depending on career interests, students can select from a variety of interest including sites located outside of the Northeast region.

EXSC 412 **3 cr.**
(W) Current Topics in Exercise Science and Sports Medicine
(Prerequisite: EXSC 210 or BIOL 347 or permission of instructor) Current topics in the field affecting health and human performance including ergogenics, exercise benefits in chronic, disease states, clinical exercise physiology, and age/gender issues. *Includes service-learning component.*

EXSC 435 **3 cr.**
(D) Women in Sport
This course is designed to concentrate on the applied psychological and selected sports medicine concerns of the female athlete, including nutrition, body composition, osteoporosis, specific exercise training, female injuries and training, and psychosocial issues.

EXSC 440 **3 cr.**
Advanced Physiology of Sport and Exercise
(Prerequisite: Fourth-year standing in Exercise Science) Advanced concepts of human perform-

Exercise Science Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	PHED ELECT–EXSC 210	Phys Ed Elective–Sports Physiology	1	3
COGNATE	BIOL 110–111	Structure & Function of Human Body	4	4
GE NSCI	CHEM 112–113	General & Analytical Chemistry	4.5	4.5
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102/102L	Computing and Information Literacy		3
GE QUAN	MATH 103 or114	Pre-Calculus OR Analysis I	4	
GE FSEM	INTD 100	Freshman Seminar[1]	1	
			17.5	17.5
Second Year				
MAJOR	EXSC 212	Nutrition in Exercise and Sport[1]	3	
MAJOR	PHED 105	Cardio. Fitness	1	
MAJOR	PHED 112	First Aid/CPR/AED	1	
COGNATE	NURS 100–BIOL 245	Family Health–General Physiology	3	4.5
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro. to Philosophy–Theology I	3	3
COGNATE	PHYS 120–121	General Physics	4	4
GE HUMN	HUMN ELECT	Humanities Electives (Cultural Diversity)	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE S/BH	PSYC 110	Fundamentals of Psychology		3
			18	17.5
Third Year				
MAJOR	PHED 203	Prevention & Care of Sports Injuries	3	
MAJOR	EXSC 229	Applied Anatomy and Kinesiology[1]	3	
MAJOR	EXSC 313	Biomechanics of Sport and Exercise		3
MAJOR	EXSC 375	Exercise Testing/Programming	3	
MAJOR	EXSC 380	Internship in Exercise Science		3
COGNATE	EDUC 120	Applied Statistics	3	
COGNATE	BIOL ELECT	BIOL 347 or 348 or 446		3
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	3	3
GE ELECT	FREE ELECT	Free Elective	3	3
			18	18
Fourth Year				
MAJOR	EXSC 442	Clinical Exercise Physiology		3
MAJOR	EXSC 412	Current Topics in Ex. Sci/Sports Med.[1]	3	
MAJOR	EXSC 440	Adv Physiology of Sport & Exercise	3	
MAJOR	EXSC 448	Research Methods in Exercise Science		3
MAJOR	EXSC 435	Women in Sport		3
MAJOR	PHED 101	Weight Training	1	
COGNATE	PSYC 284	Sports Psychology	3	
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	FREE ELECT	Free Elective		3
			16	15

TOTAL: 137.5 CREDITS

[1] *Includes service-learning component*

Coaching Minor Curriculum

Department and Number	*Descriptive Title of Course*	*Credits*
PHED 112	First Aid/CPR/AED	1
PHED 160	Introduction to Coaching	1
PHED 202	Sport Administration	3
PHED 208	Conditioning and Training for Sport	3
PHED 203	Prevention and Care of Sports Injuries	3
PSYC 284	Sports Psychology	3
PHED 205	Teaching Sport Skills	3

TOTAL: 17 CREDITS

ance as related to sport and exercise including physiological limits, Bioenergetics, fiber type/myoplasticity of skeletal muscle, cardiovascular dynamics and the athletic heart, and pulmonary ventilation and aerobic performance.

EXSC 442 **3 cr.**
Clinical Exercise Physiology
(Prerequisite: EXSC 210 or BIOL 347 or permission of instructor) This course covers exercise response and adaptation in a variety of chronic lifestyle diseases and the use of exercise tolerance assessment to improve and optimize quality of life.

EXSC 448 **3 cr.**
Research Methods in Exercise Science
(Prerequisites: Fourth-year standing in Exercise Science, EXSC 375) Designed for the student to study and gain experience in research related to the field of Exercise Science. The nature of research, methods for acquiring, analyzing, and publishing/presenting research relevant to Exercise Science.

Coaching

PHED 112 **1 cr.**
First Aid/CPR/AED
This course leads to American Red Cross certification in CPR, First Aid, and Automated External Defibrillation (AED). Prepares students to recognize and respond to respiratory, cardiac, and other emergency situations.

PHED 160 **1 cr.**
Introduction to Coaching
Prerequisite course which will assist prospective coaches as they develop a positive coaching philosophy, apply coaching principles and use sport-management skills.

PHED 208 **1 cr.**
Conditioning and Training for Sports
Students will learn how to design effective, individualized training programs by incorporating training basics such as overload, specificity, adaptation and progression. Will include individual differences among athletes, muscular fitness, energy fitness and performance factors. (Formerly PHED 210.)

PHED 202 **3 cr.**
Sports Administration
Examines the business of coaching, offering practical approaches to the administrative functions of organizing, planning, leading and controlling. Integrates philosophy and principles into practice.

PHED 203 **3 cr.**
Prevention and Care of Sports Injuries
Will cover sports first aid, prevention of and dealing with sports injuries. Helps coaches become competent first responders in sports emergencies. Students will learn how to recognize and prevent common sports injuries and administer appropriate first aid. Also covers procedures for evaluating and caring for injuries, guidelines for rehabilitation and therapeutic taping.

PSYC 284 **3 cr.**
Sports Psychology
(Prerequisite: PSYC 110) This course covers a variety of topics in sports psychology including the learning of athletic skills, principles of motivation, goal-setting and reinforcement. The emotional aspects of sports competition and various strategies for mental preparation for competition such as relaxation, concentration, and attentional skills will be discussed.

PHED 205 **3 cr.**
Teaching Sports Skills
Students will master the essentials of teaching sports skills and improve their teaching effectiveness. They will learn how to prepare for teaching sports skills, how to introduce, explain, and demonstrate sports skills and use cognitive processes to improve performance.

HEALTH ADMINISTRATION

Faculty

Daniel J. West, Ph.D., *Chair*
Mary Helen McSweeney, Ph.D.
Peter C. Olden, Ph.D.
Terri Freeman Smith, M.S.
Robert J. Spinelli, M.Ph., *Program Director*
William G. Wallick, Ph.D.

Overview

The Health Administration major integrates courses from the field of health and business administration, and is designed to develop in students the values, knowledge and skills needed for management positions in a variety of fields. The curriculum is interdisciplinary, emphasizes knowledge of global health care issues, and includes a minor in business administration. Students are given a broad base of knowledge for securing entry-

level positions with public and private agencies, organizations such as hospitals, insurance and managed care companies, pharmaceutical firms, community health and rehabilitation facilities. The curriculum also provides a theoretical foundation for future graduate-level education in various disciplines such as public health, health administration, health policy and planning, gerontology, law school and business administration. The major emphasizes applications to real-world experience by requiring a three credit, 120 hour internship, with a second three-credit elective internship, as well as 10 hours of community service each semester. Opportunities exist for students to identify with and actively participate in the Health Administration profession through an active student association affiliated with the American College of Healthcare Executives (ACHE). The program also offers a five-year, combined BS/MHA for qualified students.

Requirements for graduation include a minimum 2.5 GPA in all major courses, as well as a minimum grade of C or better in all cognate courses. A service learning component is integrated into one health administration course each semester. Dexter Hanley College students meet the service-learning requirement by completing major courses that have a service-learning component. The Health Administration program is a full undergraduate member of the Association of University Programs in Health Administration (AUPHA) in Washington, DC.

Health Administration Concentration in Long-Term Care Administration

The HADM Concentration in Long-Term Care Administration prepares students for job opportunities in nursing homes, assisted living facilities, adult day care and work with chronically ill populations. Students complete a sequence of 40 credits of Health Administration, 21 credits of Business and 12 credits of Gerontology courses, as well as a 1000 hour HADM internship. Upon successful completion of the curriculum, students will have met the educational requirements of the Pennsylvania State Board of Licensure for Nursing Home Administrators and be eligible to take the state licensure examination for long-term care administrators. The HADM/LTCA track increases credits for the Health Administration degree to 134 credits. A 10-hour-per-semester service learning requirement is integrated into the HADM/LTCA course work.

Students may also earn a second minor in Gerontology by taking Soc 110 and Gero 230. The HADM/LTCA program is accredited by the National Association of Boards of Examiners of Long-Term Care Administrators (NAB) in Washington, DC.

Minor in Health Administration

The student must take a minimum of 18 HADM credits. Four courses are required: HADM 111, 112, 211, 312.

Course Descriptions

HADM 111 **3 cr.**
Introduction to Health Administration
An introduction to health care and public health in the United States. Guest speakers and two site visits to local health care organizations are included. *Includes service-learning component.*

HADM 112 **3 cr.**
Health Systems
The nature and organization of health systems in the United States and select countries. Knowledge of health services for diverse populations is emphasized. Guest speakers and two site visits to local health care organizations are included. *Includes service-learning component.*

HADM 211 **3 cr.**
(W) Health Administration
(Prerequisite: HADM111 or 112) An introduction to management principles for health care organizations, including activities of boards of directors in health agencies and systems. A case study approach and team presentations are emphasized. *Includes service-learning component.*

HADM 212 **3 cr.**
Health Administration Law
The legal and regulatory environment of health care and the administration of health care services.

HADM 213 **3 cr.**
Supervising Health Personnel
Principles and practices of direct supervision of health care personnel including motivation, leadership and human resources functions.

HADM 284 **3 cr.**
Special Topics
Selected topics of current interest in health administration offered on a variable basis such as managerial epidemiology, international health systems, etc.

Health Administration Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	HADM 111	Introduction to Health Administration	3	
MAJOR	HADM 112	Health Systems[1]		3
GE FSEM	INTD 100	Freshman Seminar[1]	1	
GE SPCH	COMM 100	Public Speaking		3
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE WRTG	WRTG 107	Composition	3	
GE C/IL	C/IL 104	Computing & Info. Lit. for Business		3
GE NSCI	NSCI ELECT	Natural Science Elective	3	
GE QUAN	PSYC 210	Psychological Statistics	3	
GE S/BH	EC0 101	Current Economic Issues		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE PHED	PHED ELECT	Physical Education	1	
			17	18
Second Year				
MAJOR	HADM 293/w	Research in Health Administration[1]		3
MAJOR	HADM 211/w	Health Administration[1]		3
MAJOR	HADM 212	Health Administration Law	3	
COGNATE	ACC 253	Financial Accounting	3	
GE PHIL-T/RS	PHIL 210	Ethics	3	
GE PHIL-T/RS	PHIL 212	Medical Ethics		3
GE PHIL-T/RS	T/RS 122	Theology II		3
COGNATE	MGT 351	Principles of Management I	3	
COGNATE	ELECT	Electives		3
GE NSCI	NSCI ELECT	Natural Science Elective	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	3
			18	18
Third Year				
MAJOR	HADM 312	Health Finance[1]	3	
MAJOR	HADM	Health Administration Elective	3	3
MAJOR	HADM 340	Career Seminar	1	
MAJOR	HADM 380	Internship in Health Administration[1]		3
COGNATE	FIN 351	Introduction to Finance	3	
COGNATE	MKT 351	Introduction to Marketing		3
COGNATE	ELECT	Elective	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	FREE ELECT	Free Elective		3
GE PHED	PHED ELECT	Physical Education	1	
			14	15
Fourth Year				
MAJOR	HADM 441	Issues in Health Administration[1]		3
MAJOR	HADM	Elective	3	
MAJOR	HADM 315	Cultural Diversity Health Administration[1]	3	
COGNATE	ECO/IB 351	Environment of International Business	3	
COGNATE	OIM 471	Business Information Management		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3	
GE ELECT	FREE ELECT	Free Electives	3	3
GE PHED	PHED ELECT	Physical Education	1	3
			16	15

TOTAL: 131 CREDITS

[1] *Includes service-learning component*

Health Administration – Concentration in Long-Term Care Administration Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	HADM 111	Introduction to Health Administration	3	
MAJOR	HADM 112	Health Systems[1]		3
GE FSEM	INTD 100	Freshman Seminar[1]	1	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE SPCH	COMM 100	Public Speaking		3
GE WRTG	WRTG 107	Composition	3	
GE C/IL	C/IL 104	Computing & Info. Literacy for Business		3
GE NSCI	NSCI ELECT	Elective	3	
GE QUAN	PSYC 210	Psychological Statistics	3	
GE S/BH	GERO 110	Introduction to Gerontology		3
COGNATE	GERO 216	Aging and Community		3
GE PHED	PHED ELECT	Physical Education	1	
			17	18
Second Year				
MAJOR	HADM 293/w	Research in Health Administration[1]		3
MAJOR	HADM 211/w	Health Administration[1]		3
MAJOR	HADM 212	Health Administration Law	3	
MAJOR	HADM 213	Supervising Health Personnel	3	
COGNATE	GERO 218	Health and Aging		3
GE PHIL-T/RS	PHIL 210	Ethics	3	
GE PHIL-T/RS	T/RS 122	Theology II		3
COGNATE	ACC 253	Financial Accounting	3	
COGNATE	FIN 351	Introduction to Finance	3	
GE NSCI	NSCI ELECT	Natural Science Elective	3	
GE S/BH	ECO 101	Current Economic Issues		3
GE COGNATE	GERO 232	Aging and Death		3
			18	18
Third Year				
MAJOR	HADM 312	Health Finance[1]	3	
MAJOR	HADM 315–ELECT	Cult. Div. & Health Admin.–Free Elective	3	3
MAJOR	HADM 340	Career Seminar	1	
MAJOR	HADM 318	Long-Term Care Administration[1]		3
COGNATE	MGT 351	Principles of Management I	3	
COGNATE	MKT 351	Introduction to Marketing		3
COGNATE	ECO/IB351	Environment of International Business	3	
GE PHIL-T/RS	PHIL 212	Medical Ethics	3	
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	FREE ELECT	Free Electives		3
GE PHED	PHED ELECT	Physical Education	1	1
			17	16
Fourth Year				
MAJOR	HADM 441	Issues in Health Administration[1]		3
MAJOR	HADM 480	Internship in LTC Administration[1]	6	6
COGNATE	OIM 471	Business Information Management		3
GE HUMN	HUMN ELECT	Humanities Electives	6	3
GE ELECT	FREE ELECT	Free Elective	3	
			15	15

TOTAL: 134 CREDITS

[1] *Includes service-learning component*

HADM 293 3 cr.
(W) Research in Health Administration
(Majors only; Prerequisite Psyc 210) An introduction to research methodology as applied to health administration issues and problems with an emphasis on descriptive, experimental and quasi-experimental designs. *Includes service-learning component.*

HADM 312 3 cr.
Health Finance
(Prerequisite: ACC 253 or 254 or permission of the instructor) An introduction to financial and accounting concepts for health care providers. Emphasis is placed on knowledge of third-party reimbursement and budgeting concepts. *Includes service-learning component.*

HADM 314 3 cr.
Health Policy
Public policy in the health care sector is studied, including the process of policymaking. Implications of governmental policies for health care organizations and administrators are discussed.

HADM 315 3 cr.
(D) Cultural Diversity and Health Administration
(Prerequisite: HADM 211 or permission of instructor; for HADM majors or minors only) The principles of management of culturally diverse society as applied to the health care field. Emphasis is placed on the importance of assessing and addressing the health care needs of various cultural groups within a given health care service area. *Includes service-learning component.*

HADM 316 3 cr.
Health Care Marketing
Marketing theories, concepts, and strategies as applied to the health care field.

HADM 318 3 cr.
Long-Term Care Administration
An introduction to the management of long-term care facilities. Emphasis is placed on the differences between acute and long-term care, institutional and community-based long-term care services, and special concerns of the long-term care resident. Site visits to long-term care facilities are included. *Includes service-learning component.*

HADM 330 1 cr.
Managed Care
The course provides an overview of managed care, current market trends and market performance issues. Closed and open panels, managed care contracting, disease management, behavioral health services and managed Medicare/Medicaid programs are also covered. Case studies of successful managed care programs are included throughout the course.

HADM 340 1 cr.
Career Seminar
A survey of current trends and occupations in Health Administration with an emphasis on advanced planning and preparation for the required internship experience.

HADM 380 3 cr.
Internship in Health Administration
(Prerequisites: HADM 340, 18 HADM credits or approval of program director) A supervised Health Administration work experience within an approved organizational setting. Requires *120 hours in the field* and a minimum of 18 hours of on-campus, faculty led seminar. Graded Satisfactory or Unsatisfactory. Students must provide their own transportation.

HADM 441 3 cr.
Issues in Health Care Administration
(HADM seniors only) A capstone course in which students demonstrate knowledge attained throughout the HADM curriculum as well as the ability to apply that knowledge in a practical manner through completion of a "mega case study" utilizing a small administrative group/team approach. *Includes service-learning component.*

HADM 480 3 cr.
Internship in Long-Term Care Administration
(Prerequisite: approval of HADM director) A practical internship in a licensed long-term care facility under the supervision of a licensed nursing home administrator. Students spend *520 hours per semester in the field placement* and 15 hours in on-campus seminars. Students must accumulate 1,000 hours of internship experience by taking HADM 480 in both the fall and spring semesters of their Senior year. Students must provide their own transportation.

HADM 481 3 cr.
Internship in Health Administration
(Prerequisite: HADM 380) A supervised Health Administration work experience of *150 hours within an approved organizational setting.* Graded satisfactory or unsatisfactory. Students must provide their own transportation.

HUMAN RESOURCES STUDIES

Faculty

Daniel J. West, Ph.D., *Chair*
Mary Helen McSweeney, Ph.D.
Peter C. Olden, Ph.D.
Terri Freeman Smith, M.S.
Robert J. Spinelli, M.Ph.
William G. Wallick, Ph.D., *Program Director*

Overview

The Human Resources Studies major integrates knowledge from the human resources field, social and behavioral sciences, business, and the liberal arts. Human Resource professionals work within all industries and are concerned with recruiting, developing, and retaining a productive workplace. The changing nature of work, as influenced by social, economic, technological, and educational forces is explored both nationally and globally. The study of human resource theories and their practical applications in the workplace is an essential part of the program. The faculty is committed to providing the highest quality learning environment to prepare students academically and practically for employment in the human resources field. In addition, students in the HRS major are expected to actively develop their own knowledge, skills, attitudes, and competencies to prepare themselves for a career in human resources. To that end, students are encouraged to demonstrate academic excellence in all coursework, make meaningful service commitments to their communities, and develop an attitude toward life-long learning. Opportunities for students to identify with and actively participate in the HR profession, such membership in the student Chapter of the Society for Human Resource Management, are hallmarks of the program. Program highlights include:

Bachelor of Science Degree

- 131 credits with 37 credits from HRS major courses
- Required Business minor
- Required portfolio documenting specific student outcomes
- Overall minimum 2.5 GPA is required in major courses
- Overall minimum 2.0 GPA is required in cognate courses
- Required internship to gain practical work experience
- National and global focus - study abroad is encouraged
- Required 80 Hour Service Learning component
- Combined B.S./M.S. can be earned in a five-year period

Minor in Human Resources Studies

The student must take a minimum of 18 credits. Five courses are required: HRS 111, 112, 251, 252, and 340 plus one HRS elective.

Course Descriptions

HRS 111 **3 cr.**
(S) Macro Human Resources
An introduction to the changing nature of work including trends, theories, concepts, and practices for maintaining an effective workforce.

HRS 112 **3 cr.**
Micro Human Resources
An introduction to the major functional areas of the human resources field. *Includes service-learning component.*

HRS 251 **3 cr.**
(W) Performance Appraisal
A review of the performance management process including the design and implementation of job descriptions and of accompanying performance appraisal systems. *Includes service-learning component.*

HRS 252 **3 cr.**
(W) Workforce Education and Training
A study of the various organizational approaches to developing the skills and competencies of employees including the assessment of need, design, development, implementation, and evaluation of training. *Includes service-learning component.*

HRS 284 **3 cr.**
Special Topics
Selected topics in human resources are offered on a variable basis.

HRS 293 **3 cr.**
Research Applications in Human Resources
An introduction to research methodology as applied to human resources issues and problems with an emphasis on descriptive, experimental, and quasi-experimental designs.

Human Resources Studies Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	HRS 111	Macro Human Resources	3	
MAJOR	HRS 112	Micro Human Resources[1]		3
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE FSEM	INTD 100	Freshman Seminar[1]	1	
GE PHIL-T/RS	PHIL 120–T/RS 121	Intro to Philosophy–Theology I	3	3
GE SPCH	COMM 100	Public Speaking		3
GE WRTG	WRTG 107	Composition		3
GE C/IL	C/IL 104	Computing and Information Literacy	3	
GE NSCI	NSCI ELECT	Natural Science Elective	3	
QE QUAN	PSYC 210	Statistics in the Behavioral Sciences		3
GE PHED	PHED ELECT	Physical Education	1	1
			17	16
Second Year				
MAJOR	HRS 251	Performance Appraisal[1]		3
MAJOR	HRS 252	Workforce Education and Training[1]	3	
MAJOR	HRS 293	Research Applications in HR		3
COGNATE	ACC 253	Financial Accounting	3	
COGNATE	PSYC 335	Psychological Testing		3
GE S/BH	ECO 101	Current Economic Issues	3	
GE PHIL-T/RS	PHIL 210	Ethics	3	
GE PHIL-T/RS	PHIL-T/RS	Philosophy-T/RS Elective		3
GE PHIL-T/RS	T/RS 122	Theology II		3
GE NSCI	NSCI ELECT	Natural Science Elective		3
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE PHED	PHED ELECT	Physical Education	1	
			16	18
Third Year				
MAJOR	HRS 340	Compensation and Benefits		3
MAJOR	HRS 351	Recruitment, Selection and Staffing[1]	3	
MAJOR	HRS 353	HR Information Systems	3	
MAJOR	HRS 390	Career Seminar[1]		1
MAJOR	HRS ELECT	HRS Elective	3	
COGNATE	MGT 351	Principles of Management I		3
COGNATE	FIN 351	Introduction to Finance		3
COGNATE	ECO 351	Environment of International Business	3	
COGNATE	MKT 351	Introduction to Marketing		3
COGNATE	ELECT	Cognate Elective	3	
GE HUMN	HUMN ELECT	Humanities Elective	3	
GE ELECT	FREE ELECT	Free Elective		3
			18	16
Fourth Year				
MAJOR	HRS 480	Internship[1]	3	
MAJOR	HRS 490	Leadership Seminar[1]		3
MAJOR	HRS ELECT	HRS Elective	3	
COGNATE	OIM 471	Business Information Management	3	
COGNATE	ELECT	Cognate Elective	3	
GE HUMN	HUMN ELECT	Humanities Electives	3	3
GE ELECT	FREE ELECT	Free Electives		9
			15	15

TOTAL: 131 CREDITS

[1] *Includes service-learning component*

HRS 340 3 cr.
Compensation and Benefits
A study of both direct and indirect forms of compensation including legal requirements with a focus on internal and external equity.

HRS 351 3 cr.
(D) Recruitment, Selection, and Staffing
A study of the techniques, methods, and requirements for identifying, screening, evaluating, and selecting prospective job candidates. *Includes service-learning component.*

HRS 353 3 cr.
Human Resources Information Systems
An introduction to the various computer software applications related to the human resources field.

HRS 382 3 cr.
Directed Study
An independent study experience on a specific human resources–related topic or a research project.

HRS 390 1 cr.
Human Resources Career Seminar
A survey of current trends and occupations in Human Resources with an emphasis on advanced planning and preparation for the required internship experience and post-graduation career planning. *Includes service-learning component.*

HRS 480 3 cr.
Human Resources Internship
A supervised human resources work experience within an approved organizational setting. Requires at least 120 hours of human resources employment with an additional 18 hours of on-campus, faculty-led seminars and individual meetings. *Includes service-learning component.*

HRS 490 3 cr.
Human Resources Leadership Seminar
Students will assess and develop their leadership skills and participate in an in-depth case study that integrates previous learning. *Includes service-learning component.*

NURSING

Faculty

Patricia Harrington, Ed.D., *Chair*
Dona M. Carpenter, Ed.D.
Linda H. Desmond, Ed.D.
Mary Jane K. DiMattio, Ph.D.
Marian L. Farrell, Ph.D.
Rosellen M. Garrett, Ph.D.
Mary Jane S. Hanson, Ph.D.
Sharon S. Hudacek, Ed.D.
Lisa Ann Lesneski, M.S.N.
Mary E. Muscari, Ph.D.
Laurel T. Pierangeli, M.S.
Paula Roe-Prior, Ph.D.
Margarete Lieb Zalon, Ph.D.

Overview

The purpose of the baccalaureate nursing program is to prepare qualified persons for entry-level practice of professional nursing in hospitals and community health settings. The program also provides the academic foundations for advanced study in nursing.

High school graduates are admitted as freshmen into the program, which leads to a Bachelor of Science degree with a major in Nursing. Total class enrollment is limited in consideration of educational and clinical resources. The curriculum can be completed in eight regular semesters of full-time study or four academic years.

The nursing program has the full approval of the Pennsylvania State Board of Nursing. The curriculum is based on a planned progression of courses so as to develop and build upon knowledge and skills at levels of increasing competency. Therefore, all required courses must be taken in sequence. For progression through the Nursing program, a minimum average grade of C must be attained in the prerequisite Natural Science courses (BIOL 110-111, CHEM 110-111, BIOL 210). A minimum grade of C must be attained in the prerequisite Quantitative course, PSYC 210, and in each Nursing course. Students who score less than a 13 on the Math Placement exam during Freshman Orientation will be required to complete Math 102 or an equivalent course.

Final grade for Nursing courses with concurrent clinical laboratory: The clinical-laboratory component of a Nursing course shall

be on the basis of S, Satisfactory (Pass), or U, Unsatisfactory (Fail). If the student obtains an S in the clinical laboratory, the final grade in the course, which is entered on the permanent transcript, shall be the grade assigned for the lecture portion of the course. If the student does not obtain an S in the clinical laboratory, the final grade in the course, which is entered on the permanent transcript, shall be an F, no matter what grade was assigned for the lecture portion of the course. Both lecture and clinical components must be repeated if a grade of C-, D+, D or F is obtained in a Nursing course.

Prior to the junior and senior year, students enrolled in the Nursing program must present a certificate as evidence of having completed the Cardiopulmonary Resuscitation Basic Life Support course or Modular course offered by the American Red Cross or the American Heart Association. In order to graduate, Nursing majors are required to complete a minimum of 20 hours of community service during each academic year. Dexter Hanley College students will meet the service-learning requirement by completing major courses that have a service-learning component.

In addition to the general University tuition and fees, students majoring in Nursing assume responsibility for the following: uniforms and other required clinical accessories, yearly physical examinations, entrance eye examination, immunizations, comprehensive achievement tests, liability insurance and any travel expenses incurred. Students must also provide their own transportation to and from agencies utilized for clinical laboratories, and have access to a car during their community-health clinical experiences in the senior year. Senior status in the Nursing Program is defined as completion of at least 100 credits including cognate and prerequisite courses for NURS 450 and NURS 452.

Applicants and students should be aware that Pennsylvania law prohibits licensure of individuals convicted of felonies related to controlled substance and may prohibit licensure if there is a conviction for any felonious act. For details, see the Admissions Brochure and the *Student Handbook* of the Department of Nursing. Prior to the junior year clinical courses, all Nursing majors are required to submit a Pennsylvania Child Abuse History Clearance and a Pennsylvania State Police Criminal Record Check to the Nursing Department. These clearances are maintained on file in the Department of Nursing. Copies will be provided to clinical sites upon request.

Upon graduation the students will be eligible for admission to the examination for the registered-nurse licensure. The University of Scranton's Nursing program is accredited by the Commission on Collegiate Nursing Education.

The Department of Nursing also offers a flexible program for registered nurses and licensed practical nurses interested in returning to school to complete a bachelor's degree in nursing. An accelerated track is offered for students interested in pursuing graduate education and who meet the admission criteria for this option. For BS requirements, please see the Dexter Hanley College section.

Course Descriptions

The following option is available for ROTC Nurse cadets: Subject to annual review, 3 credits may be awarded for successful completion of the ROTC Nurse Summer Training Program (NSTP) in place of NURS 473 Lab (2 cr.) and NURS 475 Lab (1 cr.).

NURS 100 — 3 cr.
Family Health
(For non-Nursing majors) Concepts and principles related to the promotion and maintenance of optimal family health. Considers factors pertinent to health needs and health practices throughout the life cycle.

NURS 111 — 3 cr.
(D) Women's Health
(Open to all students) Course focuses on historic, physiological, social, cultural, emotional and economic issues affecting women's health. The course explores strategies to empower women's use of health-care services. Class members will be expected to participate actively in all discussions.

NURS 112 — 3 cr.
Sexual Development through the Life Span
(Open to all students) Impact on sexual roles and expression, and health and social issues as they relate to sexual function. Emphasis is placed on developing sexual awareness of the srudent. Three hours lecture.

NURS 113 — 1 cr.
Interpretation: Cardiac Rhythms
(Prerequisites: NURS 350 or NURS 380, C/IL 102) Focus on the role of the nurse in providing care to individuals experiencing common cardiac dysrhythmias. One hour lecture.

Nursing Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Spr. Cr.*
First Year				
MAJOR	NURS 140[1]	Introduction to Nursing Concepts		3
GE NSCI	CHEM 110–111	Introduction to Chemistry	3	3
GE NSCI	BIOL 110–111	Structure & Function	4	4
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3	3
GE C/IL	C/IL 102	Computing and Information Literacy		3
GE PHIL-T/RS	PHIL 120	Introduction to Philosophy	3	
GE S/BH	PSYC 110	Fundamentals of Psychology	3	
GE FSEM	INTD 100	Freshman Seminar	1	
GE PHED	PHED ELECT	Physical Education		1
			17	17
Second Year				
MAJOR	NURS 250	Physical Assessment /Health Patterns	3	
MAJOR	NURS 251	Nursing Related to the Health Patterns		4
MAJOR	NURS 262	Pharmacology I		1
COGNATE	EXSC 220	Nutrition for Health Professions		3
COGNATE	BIOL 210	Introductory Medical Microbiology	3	
GE QUAN	PSYC 210	Psychological Statistics		3
GE PHIL-T/RS	PHIL 210	Ethics	3	3
GE PHIL-T/RS	T/RS 121	Theology I	3	
GE HUMN	HUMN ELECT	Humanities Electives	6	
GE S/BH	PSYC 225[3]	Abnormal Psychology		3
GE PHED	PHED ELECT	Physical Education		1
			18	17-18
Third Year				
MAJOR	NURS 350–371	Nursing Care of the Adult I–II	5.5	5.5
MAJOR	NURS 352	Mental Health Nursing	5.5	
MAJOR	NURS 373	Nursing Care of the Childbearing Family		5
MAJOR	NURS 360–361	Pharmacology II–III	1	1
GE PHIL-T/RS	PHIL 212[3]–T/RS 122	Medical Ethics–Theology II	3	3
GE ELECT	PSYC 221[3]–ELECT	Childhood and Adolescence–Elective	3	3
			18	17.5
Fourth Year				
MAJOR	NURS 450	Nursing Care of the Adult III	5.5	
MAJOR	NURS 452	Nursing Care of Children and Adolescents	4.5	
MAJOR	NURS 493	Research in Nursing	3	
MAJOR	NURS 471	Community Health Nursing		3.5
MAJOR	NURS 473[2]	Synth. of Leadership Concepts in Nursing		3
MAJOR	NURS 475[2]	Critical Care Nursing		3
GE HUMN	HUMN ELECT	Humanities Elective		3
GE ELECT	FREE ELECT	Free Elective		3
GE PHED	PHED ELECT	Physical Education	1	
			14	15.5

TOTAL: 135 CREDITS

[1] *Fall or spring semester*

[2] *ROTC option available*

[3] *Recommended by the department*

NURS 114 **3 cr.**
Cardiopulmonary Critical Care Nursing
(Prerequisites: NURS 350 or NURS 380, C/IL 102) Focus on the professional nurse's role in providing care to critically ill patients. Emphasis on nursing care for alterations in cardiopulmonary function, including common cardiac dysrhythmias.

NURS 140 **3 cr.**
(W) Introduction to Nursing Concepts
An exploration of the core concepts of the client, health, nursing and health patterns. Historical, philosophical, and social development of nursing and the role of the professional nurse are presented. Understanding of health and health continuum in the broader perspective of the human person, the physiological, psychological, developmental, and socio-cultural modes. *Service learning: 20 hours.* Three hours lecture.

NURS 213 **3 cr.**
(W) Child and Adolescent Health Promotion
(Recommended Prerequisite: PSYC 221, but open to all students) Focus on the professional's role as advocate, care-giver and/or teacher in the promotion of health for children and adolescents, directly through health maintenance and prevention and indirectly through health-care policy.

NURS 241 **3 cr.**
(W) Perspectives in Professional Nursing
(Prerequisites: Sophomore standing in the Nursing Program, RN and LPN students only) Perspectives in professional nursing explores concepts incorporated in the philosophy, organizing framework and curriculum structures of the Nursing program. Integration of the health patterns and nursing process in the delivery of professional nursing care is introduced. Pertinent issues impacting on the nursing profession are addressed.

NURS 242 **3 cr.**
Nursing Related to the Assessment of Health Patterns
(Prerequisites: Sophomore standing, NURS 241, RN and LPN students only) Focus on the professional nurse's role as caregiver in assessing, diagnosing and planning interventions of adaptive health patterns in individuals. Application of the nursing process to well persons and to individuals and families with alterations in health patterns. Exploration of concepts for planning holistic health care. Two hours lecture and three hours laboratory.

NURS 250 **3 cr.**
Physical Assessment Related to Health Patterns
(Prerequisires: BIOL 110-111, sophomore standing in Nursing program) Development of beginning skill in the basic physical-assessment techniques necessary for the promotion of optimal health as a care-giver. Focus on the professional nurse's role in assessing the physiological dimension of adaptive health patterns in individuals with a stable health status. *Service learning: 10 hours.* Two hours lecture and three hours campus laboratory.

NURS 251 **4 cr.**
Nursing Related to Health Patterns
(Prerequisites: NURS 140, NURS 250; co-requisite: NURS 262) Focus on the professional nurse's role in promoting the individual's health status, utilizing the developmental, physiological, psychological and sociocultural dimensions of functional health patterns. Development of beginning skills in therapeutic nursing interventions. *Service learning: 10 hours.* Two hours lecture, six hours campus/clinical laboratory

NURS 262 **1 cr.**
Pharmacology I
(Prerequisites: Chem 110, BIOL 110-111, BIOL 210) Principles of pharmacology and specific drug groups. Emphasis is placed on drug actions, side effects, dosages and nursing responsibilities.

NURS 310 **3 cr.**
(D) Understanding Transcultural Health Care
This course will focus on exploring values, beliefs and lifestyles of diverse cultural groups in order to broaden the student's perception and understanding of health and illness and the variety of meanings these terms carry for members of differing groups.

NURS 311 **3 cr.**
Computer Applications in Nursing
(Prerequisite: Sophomore standing in Nursing program, LPN or RN) Designed for Nursing majors or nurses who wish to learn computer capabilities for nursing applications in ways that do not involve programming. Emphasis is on interactive computer experience as an introduction to disk-operating systems, and word processing, computer-assisted instruction, file management, database management system, care-planning, software evaluation and research access.

NURS 312 **3 cr.**
(D) Nursing the Older Adult
(Prerequisite: Junior standing in Nursing, OT, or PT program) Focus on the professional nurse's role of care-giver, advocate and teacher in promoting and maintaining adaptive responses of the older adult experiencing alterations in health patterns. Emphasis placed on multidimensional

assessment factors and interventions in meeting bio-psycho-social needs.

NURS 314 3 cr.
Principles of Nursing Ethics
(Prerequisites: Philosophy 210, Junior standing in Nursing Program, LPN or RN track) Addresses ethical issues in the clinical nursing practice of the professional nurse as care-giver, advocate, teacher, leader/manager. The focus is on the decisions made regarding patient care. Three hours lecture.

NURS 344 3 cr.
Forensic Health Care of Victims
An overview of forensic health issues as they relate to victims of violent crimes, such as intrafamilial violence, sexual violence, stalking, workplace violence, homicide and terrorism. Content includes forensic roles, evidence collection and preservation, victim needs and rights, responses to trauma, victim's resources, and death investigation.

NURS 345 3 cr.
Forensic Health Care of Offenders
An overview of forensic health issues as they relate to perpetrators of violent crimes, including intrafamilial violence, sexual violence, stalking, workplace violence, homicide and terrorism. Content includes forensic roles, crime classifications, relationship between animal cruelty and human violence, offender needs and rights, and juvenile offenders.

NURS 350 5.5 cr.
Nursing Care of the Adult I
(Prerequisites: CHEM 110-111, BIOL 210, NURS 251; co-requisites: NURS 360 and NURS 352) The first of three courses that focuses on physiological and psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to alterations in oxygenation, perfusion and metabolism, and the perioperative experience are included. *Service learning: 10 hours.* Three hours lecture, 15 hours clinical lab/week (for seven weeks) alternate with NURS 352.

NURS 352 5.5 cr.
Mental Health Nursing
(Prerequisites: CHEM 110-111, BIOL 110-111, BIOL 210, NURS 251; co-requisites: NURS 360, NURS 350) The focus is on psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Psychopathology and nursing care of individuals and families experiencing alterations in mental health are explored. Three hours lecture, 15 hours clinical lab/week (for seven weeks) alternate with NURS 350.

NURS 360 1 cr.
Pharmacology II
(Prerequisite: Nurs 262) Principles of pharmacology and specific drug groups related to alterations in the sleep-rest, activity-exercise, self-perception/self-concept health patterns. Emphasis is placed on drug actions, side effects, dosages, and nursing responsibilities. One hour lecture.

NURS 361 1 cr.
Pharmacology III
(Prerequisite: NURS 360) Principles of pharmacology and specific drug groups related to alterations in the nutrition-metabolic, sexuality-reproduction, role-relationship, cognitive-perceptual, and elimination health patterns. Emphasis is placed on drug actions, side effects, dosages, and nursing responsibilities. One hour lecture.

NURS 371 5.5 cr.
Nursing Care of the Adult II
(Prerequisites: NURS 350, NURS 352; co-requisites: NURS 361, NURS 373) The second of three courses that focus on physiological and psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to alterations in metabolism, nutrition and immunity are included. *Service learning: 10 hours.* Three hours lecture, 15 hours clinical lab/week (for 7 weeks) alternate with NURS 373.

NURS 373 5 cr.
Nursing Care of the Childbearing Family
(Prerequisites: NURS 350, NURS 352; co-requisites: NURS 361, NURS 371) Focus is on the physiological and psychological adaptation to functional and dysfunctional health patterns in the child-bearing family. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to childbearing, childbirth and their complications are addressed. Pathophysiological processes related to alterations in sexual health are also included. Clinical experiences are designed to develop the professional nursing role of care giver, advocate and

teacher in promoting and restoring health. Three hours lecture, 12 hours clinical lab/week (for 7 weeks) alternate with NURS 371.

NURS 384 **3 cr.**
Perioperative Nursing
(Prerequisite: NURS 350) This course presents concepts and information essential for perioperative nursing practice. Content includes essentials of perioperative procedures in relation to nurses' planning and management of the patient's surgical experience. Precepted clinical experiences are provided in various phases of the perioperative nursing: preoperative, operative and post-anesthesia care. Emphasis is placed on the development of beginning skills in the operative setting. One hour lecture and six hours laboratory.

NURS 405 **3 cr.**
Health Writing for Publication
(Cross-listed with NURS 505; open to all junior and senior students) This course enables students to enhance their writing skills by utilizing principles of effective writing as they relate to health issues. Students select projects to develop from idea to polished manuscript for both a professional journal and a consumer newspaper/magazine. Online, Web-based course.

NURS 410 **3 cr.**
Nursing Management
Study of the management process in nursing settings with a focus on the planning, implementation and delivery of nursing care in complex organizations. Focus is on the collaborative role of nursing within the organization and the analysis and resolution of problems. Three hours lecture.

NURS 450 **5.5 cr.**
Nursing Care of the Adult III
(Prerequisites: NURS 371, NURS 373, NURS 361; co-requisites: NURS 452) This is the final course in a three-course sequence that focuses on physiological and psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to alterations in mobility, elimination, cognition, and perception are included. *Service learning: 10 hours.* Three hours lecture, 15 hours clinical lab/week for seven weeks, alternate with NURS 452.

NURS 452 **4.5 cr.**
Nursing Care of Children and Adolescents
(Prerequisites: NURS 371, NURS 373, NURS 361; co-requisite: NURS 450) The focus is on the physiological adaptation to functional and dysfunctional health patterns in children and adolescents. Emphasis is placed on the nursing process and functional health patterns as a framework for nursing practice. Health promotion and the pathophysiology and nursing care related to the disorders of childhood are included. Three hours lecture, nine hours clinical lab/week for seven weeks, alternate with NURS 450.

NURS 471 **3.5 cr.**
(D) Community Health Nursing
(Prerequisites: NURS 450, NURS 452; co-requisites: NURS 473, NURS 475) The focus is on the professional nursing roles of care giver, advocate, teacher and leader/manager in promoting adaptive responses to functional and dysfunctional health patterns in individuals, families, communities and groups. The student synthesizes prior knowledge of functional health patterns and all phases of the nursing process in meeting the health-care needs of community-based clients in diverse population settings. *Service learning: 10 hours.* 4.25 hours lecture/week for 4.5 weeks; 18 hours clinical lab/week for 4.5 weeks (alternate with NURS 473 and 475)

NURS 473 **3 cr.**
Synthesis of Leadership Concepts in Nursing
(Prerequisites: NURS 450, NURS 452; co-requisites: NURS 471, NURS 475) The focus is on the professional nurse's role as care giver, advocate, teacher and leader/manager in promoting, restoring, and maintaining adaptive responses in individuals experiencing complex alterations in functional health patterns. Continued use of the nursing process and the development of case-management skills in implementing and evaluating nursing care in collaboration with the nursing and interdisciplinary health teams are emphasized. Three hours/week lecture for 4.5 weeks; 18 hours clinical lab/week for 4.5 weeks, alternate with NURS 471 and 475.

NURS 475 **3 cr.**
Critical Care Nursing
(Prerequisites: NURS 450, NURS 452; co-requisites: NURS 471, NURS 473) The focus is on physiological and psychological adaptation to complex dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to complex alterations in health patterns are included. Three hour lectures/week for 4.5 weeks; 18 hours clinical lab/week for 4.5 weeks, alternate with NURS 471 and 473.

NURS 483 3 cr.
Independent Study in Nursing
(RN students only; Prerequisites: Senior standing in the Nursing program, NURS 493) An independent project of academic or professional nature in an area specific to professional nursing. Students develop and complete a specific project and work on a one-to-one basis with a faculty member in the Department of Nursing.

NURS 493 3 cr.
(W) Research in Nursing
(Prerequisites: Senior standing in the Nursing program, PSYC 210) Introduction to and application of the principles and process of research in professional nursing practice. Study of research design, data-collection techniques, interpretation and critique of nursing research, literature, and reports and the development of the ability to become a discriminating consumer of nursing research. Three hours lecture.

OCCUPATIONAL THERAPY

Faculty

Elizabeth Ann Ciaravino, Ph.D., *Chair*
Karen Brady, M.O.T.
Thomas Joseph Ciucci, M.S.
Rita P. Cottrell, M.A.
Moses N. Ikiugu, Ph.D.
Carol L. Reinson, M.S.
Barry Allen Wolf, M.Ed.

Overview

The Department of Occupational Therapy at The University of Scranton offers a five-year, entry-level, Master of Science degree in Occupational Therapy. The Occupational Therapy curriculum is based on a frame of reference that is developmental, humanistic and holistic in nature, and that emphasizes optimal function throughout the life span. The program is integrated with a liberal arts and science foundation and is designed to prepare strong, generalist, entry-level practitioners with the capacity for critical thinking, creative analysis and clinical reasoning.

Admission to the program is normally open to first-time incoming freshmen. Applicants are selected on a competitive basis, with emphasis placed on high school record, standardized test scores, extracurricular activities, and letters of recommendation. Observation and/or volunteer experience in occupational-therapy settings is required and must be documented. Transfer students are considered on an individual, space-available basis

The course work is sequenced in a planned progression in order to build upon and develop knowledge and skills at increasing levels of complexity, competence and integration. A minimum grade of C (2.00) must be attained in every undergraduate cognate and Occupational Therapy course. In addition, a service-learning component is integrated into one OT course during each undergraduate semester, with a minimum of 10 hours required per course.

Students usually enter this program as freshmen, proceed through four years of undergraduate study and receive a Bachelor of Science degree in Health Sciences. A minimum, overall, undergraduate GPA of 2.75 is required in order to advance into the fifth or graduate year of the program; and a minimum, overall GPA of 3.00 must be achieved and maintained for all graduate courses. Required OT Level I and Level II Internships will be graded on a Pass/Fail basis. Upon completion of graduate requirements, a degree of Master of Science in Occupational Therapy is awarded.

Overall framework for the fifth (Master's) year is Professional Leadership, with a focus on interdisciplinary practice and includes: development of enhanced professional behaviors, advanced OT theory, interpersonal dynamics and leadership skills, research and efficacy-based practice, and advanced clinical skills. The design is a full, five-year, academic program which allows sufficient time to include all necessary components, balanced in proper sequence, and without overloading any one semester.

Beginning in the third year, the OT Level I Clinical courses are scheduled immediately following the OT Practice course in that area to enhance the integration of theory and practice, to ensure sufficient numbers of clinical placements in the students' home locations, and to avoid conflict with the standard academic semester schedule. Courses in the OT graduate year serve to actualize the expanded curricular themes of professional leadership and interdisciplinary practice, enhanced pro-

fessional behaviors and interpersonal dynamics, advanced OT theory, applied clinical research, and advanced clinical practice.

One of the two required OT Level II Internships follows completion of the undergraduate academic coursework; therefore, students are better prepared for full-time, supervised practice. Also, students enter the academic portion of the Master's year having had some concentrated, extended, full-time clinical experiences, which make for better integration of theory and practice, and serve to enrich the classroom learning and teaching environment. The second, required, full-time internship follows completion of the fifth or graduate year of the program, and upon completion graduates are prepared for entry-level practice in occupational therapy. After the required clinical work is finished, students may choose to participate in a Level II Internship in a specialty area of practice. Students are responsible for their transportation and travel costs to and from assigned clinical and internship settings and should expect to pay room and board expenses during the Level II experiences.

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA, and their web address is www.aota.org. Graduates of the program are able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

The normal length of time for completion of the program is five and one-quarter years. All OT students must complete Level II Fieldwork within 24 months following completion of the academic portion of the program. Students will receive the MS in OT degree following completion of all academic and clinical requirements.

Course Descriptions

OT 140 1 cr.
Introduction to Occupational Therapy
An introduction to the profession of occupational therapy, including an overview of history, philosophical bases, standards and ethics, and current and future directions for practice. Clinical areas of focus and practice settings are presented with particular emphasis placed on the role of the occupational therapist. Majors only. One two-hour seminar/week.

OT 141 3 cr.
Occupational Therapy Theoretical Concepts
A comprehensive review of occupational- therapy theoretical frames of reference and models of practice, with emphasis on an analysis of their history, philosophical foundations, and applications to practice. The focus is on human occupation and adaptation, and its multicultural aspects. Three hours lecture/week, and a minimum total of *10 hours of service learning.*

OT 240 3 cr.
Activity Analysis I
Analysis, theory and application of activities and media used in occupational therapy treatment with children and adolescents. Adaptation and grading of activities as well as opportunities to select and teach activities will be included. One hour lecture, four hours lab/week, and a minimum total of *10 hours of service learning.*

OT 241 3 cr.
Activity Analysis II
(Prerequisite: OT 240) Analysis, theory and application of activities and media used in occupational therapy treatment with the young and older adult. Introduction to standardized and non-standardized test to assist in selecting activities as well as proper documentation of activities will be addressed. One hour lecture, four hours lab/week, and a minimum total of *10 hours of service learning.*

OT 256 4 cr.
Human Anatomy for Occupational Therapy
A regional in-depth study of human anatomy with major emphasis on functional anatomy. This will be accomplished through the study of prosected human specimens and surface anatomy. Three hour lecture, two hour lab/week.

OT 275 3 cr.
Clinical Kinesiology
(Prerequisites: BIOL 110-111, OT 256) Application of the principles of functional anatomy with

Occupational Therapy Curriculum

	Department and Number	*Descriptive Title of Course*	*Fall Cr.*	*Int. Cr.*	*Spr. Cr.*	*Sum. Cr.*
First Year						
MAJOR	OT 140	Introduction to OT	1			
MAJOR	OT 141	OT Theoretical Concepts			3	
GE NSCI	BIOL 110–111[1]	Structure & Function of Human Body	4		4[1]	
GE S/BH	SOC 110	Introduction to Sociology			3	
GE S/BH	PSYC 110	Fundamentals of Psychology	3			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	3		3	
GE C/IL	C/IL 102	Computing and Information Literacy	3			
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	3		3	
GE FSEM–PHED	INTD 100–PHED	Freshman Seminar–Physical Education	1		1	
			18		17	
Second Year						
MAJOR	OT 240–241	Activity Analysis I–II	3		3	
MAJOR	OT 256	Human Anatomy for OT	4			
MAJOR	OT 275	Clinical Kinesiology			3	
COGNATE	PSYC 221–222	Child & Adol.–Adult & Aging	3		3	
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II			6	
GE HUMN	HUMN ELECT	Humanities Electives	6		3	
GE PHED	PHED ELECT	Physical Education	1			
			17		18	
Third Year						
MAJOR	OT 346–347	Pathological Conditions I and II	3		3	
MAJOR	OT 356	Functional Neuroanatomy	3			
MAJOR	OT 360	OT Practice I (Pediatrics)	3			
MAJOR	OT 361	OT Practice II (Psychosoc. Rehab.)			3	
MAJOR	OT 3802	OT Level I Clinical I (Peds.)		1[2]		
MAJOR	OT 3812	OT Level I Clinical II (Psysoc.)				1[2]
COGNATE	CHS 341–HADM 112	Group Dynamics–Health Systems	3		3	
COGNATE	CHS 333	Multiculturalism in Human Srvs.	3			
GE QUAN	PSYC 210	Psychological Statistics			3	
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective			3	
GE HUMN	HUMN ELECT	Humanities Elective			3	
GE PHED	PHED ELECT	Physical Education	1			
			16	1	18	1
Fourth Year						
MAJOR	OT 440	Mgt. and Supv. of OT Services			3	
MAJOR	OT 451	Hand Rehabilitation	2			
MAJOR	OT 460	OT Practice III (Physical Rehab.)	3			
MAJOR	OT 461	OT Practice IV (Geriatrics)			3	
MAJOR	OT 475	Advanced Therapeutic Techniques			3	
MAJOR	OT 480[2]	OT Level I Clinical III (Phys.)		1[2]		
MAJOR	OT 493	Research Methods in OT	3			
GE ELECT	FREE ELECT	Free Electives	6		6	
			14	1	15	
Fifth Year (Summer)						
MAJOR	OT 581[3]	OT Level II Internship I (Psysoc.)				
or MAJOR	or OT 582[3]	OR OT Level II Internship II (Phys.)				6
Fifth Year						
MAJOR	OT 501	Leadership in Occupational Therapy	3			
MAJOR	OT 502	Advanced OT Theory			3	
MAJOR	OT 560	Advanced Interpersonal Dynamics	3			
MAJOR	OT 575	Advanced Clinical Practice	3			
MAJOR	OT 583	OT Level II Internship III (Optional)		(4)		
MAJOR	OT 593	OT Applied Clinical Research I	3			
MAJOR	OT 594	OT Applied Clinical Research II			3	
COGNATE	HADM 504	Human Resources Management	3			
COGNATE	HADM 508	Leadership in Health Care Organizations			3	
			12	(4)	12	
Sixth Year (Summer)						
MAJOR	OT 581[3]	OT Level II Internship I (Psysoc.)				
or MAJOR	or OT 582[3]	OR OT Level II Internship II (Phys.)				6

TOTAL: 170-172 CREDITS

[1] *Extra science credits*

[2] *OT Level I Clinical I, II, III are each a minimum of two weeks, full time.*

[3] *OT Level II Internship I, II are required and each a minimum of 12 weeks, full time, in Psychosocial Rehabilitation and Physical Rehabilitation. Time period scheduled for individual students may vary as determined by the Department, and with consideration of student needs and circumstances.*

emphasis on normal and abnormal movement. Measurement techniques for range of motion and muscle testing are presented, with emphasis on the movement and strength requirements found in self-care, work, and leisure activities. Concepts are integrated in lab experiences. Two hours lecture, two hours lab/week.

OT 346 3 cr.
Pathological Conditions I
A review of pathological conditions seen in occupational-therapy practice, including: diagnosis, etiology, progression, performance deficits, treatment, prognosis, and functional outcomes. Emphasis placed on examining developmental/pediatric disabilities, and psychosocial dysfunction. The promotion of health, prevention, and implications for the individual, family, and society are discussed. Three hours lecture/week.

OT 347 3 cr.
Pathological Conditions II
(Prerequisite: OT 346) A review of pathological conditions seen in occupational-therapy practice, including: diagnosis, etiology, progression, performance deficits, treatment, prognosis and functional outcomes. Emphasis placed on examining adult physical dysfunction, and geriatric difficulties. The promotion of health, prevention, and implications for the individual, family, and society are discussed. Three hours lecture/week.

OT 356 3 cr.
Functional Neuroanatomy
(Prerequisites: OT 256, OT 275) An overview of applied neuroanatomy and function, with emphasis on sensory, perceptual, and motor performance. Normal structure and function are discussed, together with nervous-system dysfunction, as applied to self-care, work, and leisure activities related to OT practice. Two hours lecture, two hours lab/week.

OT 360 3 cr.
Occupational Therapy Practice I: Pediatrics
(Prerequisites: OT 241, OT 275) Theoretical frames of reference, evaluation, and treatment intervention used to enhance the function of infants, children, and other individuals with developmental disabilities. Methods of observation, assessment, and treatment approaches are introduced and practiced in lab simulations and field trips to area facilities. Two hours lecture, two hours lab/week, and a minimum total of *10 hours of service learning.*

OT 361 3 cr.
Occupational Therapy Practice II: Psychosocial Rehabilitation
(Prerequisite: CHS 341) An overview of theoretical frames of reference, evaluation, and treatment intervention strategies used to enhance the function of individuals with psychosocial dysfunction. Methods of observation, assessment, and treatment approaches are introduced and practiced in lab simulations and field trips to area facilities. Two hours lecture, two hours lab/week and a minimum total of *10 hours of service learning.*

OT 380 1 cr.
Occupational Therapy Level I Clinical – I: Pediatrics
(Prerequisites: OT 346, OT 356, OT 360) Directed observation and supervised participation in the occupational-therapy process in a pediatric/developmental disabilities setting. Emphasis on the integration of theory and practice. Intersession, two weeks, full time.

OT 381 1 cr.
Occupational Therapy Level I Clinical – II: Psychosocial Rehabilitation
(Prerequisites: OT 347, OT 361, OT 380) Directed observation and supervised participation in the occupational-therapy process in a psychosocial-rehabilitation setting. Emphasis on the integration of theory and practice. Summer, two weeks, full time.

OT 440 3 cr.
Management and Supervision of Occupational-Therapy Services
An application of major management principles to the provision of occupational-therapy services, with emphasis on the administrative and supervisory requirements in managing an occupational therapy department. Information provided concerning program planning, recruitment, marketing, budgeting, supervision, documentation, evaluation, reimbursement, and quality assurance. Three hours lecture/week.

OT 451 2 cr.
Hand Rehabilitation
(Prerequisites: OT 256, OT 275) An in-depth review of functional anatomy of the hand and arm, with emphasis on rehabilitation principles and basic splinting techniques. Theoretical concepts, evaluation, and fabrication procedures are integrated in lab experiences. One hour lecture, two hours lab/week.

OT 460 3 cr.
Occupational Therapy Practice III: Physical Rehabilitation
(Prerequisites: PT 256, OT 275, OT 360, OT 361) Neurodevelopmental, biomechanical, and rehabilitative approaches will be explored for the treatment of individuals with major physical disabilities. Methods of observation, assessment, and treatment techniques are introduced and practiced in lab simulations and field trips to area facilities. Two hours lecture, two hours lab/week, and a minimum total of *10 hours of service learning.*

OT 461 3 cr.
Occupational Therapy Practice IV: Geriatrics
(Prerequisite: OT 460) Understanding the biopsychosocial changes, characteristics, and needs of older persons. Methods of observation, assessment, and treatment approaches are introduced and practiced in lab simulations and field trips to area facilities. Two hours lecture/two hours lab/week, and a minimum total of *10 hours of service learning.*

OT 475 3 cr.
Advanced Therapeutic Techniques
(Prerequisites: OT 451, OT 460, OT 480) Advanced theoretical concepts and treatment applications designed to provide exposure to the most current areas of focus in practice. The approaches reviewed may include advanced group work, neurodevelopmental treatment, sensory integration, joint mobilization, industrial medicine, adaptive seating, and assistive technology. Two hours lecture, two hours lab/week.

OT 480 1 cr.
Occupational Therapy Level I Clinical – III: Physical Rehabilitation
(Prerequisites: OT 381, OT 451, OT 460) Directed observation and supervised participation in the occupational therapy process in a physical rehabilitation setting. Emphasis on the integration of theory and practice. Intersession, two weeks, full time.

OT 493 3 cr.
Research Methods in Occupational Therapy
(Prerequisite: PSYC 210) An introduction to research design, data collection, analysis, and interpretation of findings. Emphasis placed on critical review of occupational-therapy research studies, application to clinical practice, quantitative, and qualitative methods. Concepts are integrated through the preparation of a research proposal. Three hours lecture/week.

OT 501 3 cr.
Leadership in Occupational Therapy
Extensive analysis of the past, present, and future of leadership in occupational therapy. This course will examine the historical influences of the profession's founders, current trends in occupational therapy leadership, and possibilities for leadership evolution. Three hours lecture/week.

OT 502 3 cr.
Advanced Occupational Therapy Theory
(Prerequisite: OT 581 or OT 582) A review of how occupational-therapy paradigms have been established and changed over time, and how these changes have influenced occupational-therapy practice will be presented. Particular attention will be paid to the cultural, economic, and demographic motivators of theory development and application. Three hours lecture/week.

OT 560 3 cr.
Advanced Interpersonal Dynamics
An in-depth analysis of disability from the vantage point and perspective of the disabled is done through the use of pathographies. Theoretical approaches and concepts are integrated through directed group activities. Two hours lecture, two hours lab per week or equivalent.

OT 575 3 cr.
Advanced Clinical Practice
(Prerequisites: OT 581 or OT 582) In-depth exposure to selected areas that represent the current focus of advanced practice in occupational therapy. The areas of practice examined in the course will include community-based programs, non-medical settings, alternative care, and natural environments. Two hours lecture, two hours lab per week or equivalent.

OT 581 6 cr.
OT Level II Internship – I: Psychosocial Rehabilitation
(Prerequisite: completion of all undergraduate coursework or academic graduate coursework) Full-time, supervised, level II clinical experience in the area of psychosocial rehabilitation. In order to be eligible to sit for the national certification examination for Occupational Therapist Registered, the student must achieve at least the minimum scores on the AOTA Fieldwork Evaluation. Summer, following the fourth or fifth year of the program, 12 weeks minimum, full time.

OT 582 6 cr.
OT Level II Internship – II: Physical Rehabilitation
(Prerequisites: completion of all undergraduate coursework or academic graduate coursework) Full-time, supervised, level II clinical experience in the area of physical rehabilitation. In order to be eligible to sit for the national certification examination for Occupational Therapist Registered, the student must achieve at least the minimum scores on the AOTA Fieldwork Evaluation. Summer, following the fourth or fifth year of the program, 12 weeks minimum, full time.

OT 583 4-6 cr.
OT Level II Internship – III: Specialty (Optional)
(Prerequisites: OT 581, OT 582) Full-time, supervised, level II clinical experience in a specialty area of practice. Arranged on an availability basis. Fall, following the fifth year of the program, 8 to 12 weeks, full time.

OT 593 3 cr.
OT Applied Clinical Research I
(Prerequisites: OT 493, OT 581 or OT 582) This is designed to promote entry-level research competencies in health-care, education, and community settings by engagement in actual research activities that are drawn upon and amplified in the research process under the direction of a research advisor. Three hours seminar, advising session or equivalent/week.

OT 594 3 cr.
OT Applied Clinical Research II
(Prerequisite: OT 593) This course is the third and last course in the capstone experience.* It involves the completion of a systematic research study that is based on a body of knowledge or theoretical approach, and designed to contribute to the field of occupational therapy. Three hours seminar, advising session or equivalent/week.

PHYSICAL THERAPY

Faculty

John P. Sanko, Ed.D., *Chair*
Tracey L. Collins, M.B.A.
Marybeth Grant-Beuttler, M.S.
Renee M. Hakim, Ph.D.
Edmund M. Kosmahl, Ed.D.
Peter M. Leininger, M.S.
Gary E. Mattingly, Ph.D.

Overview

The Department of Physical Therapy offers a five-year Master of Physical Therapy (M.P.T.). This degree prepares graduates to enter the profession as physical therapists. Graduates receiving the MPT degree are qualified to sit for licensure examination in all 50 states. The M.P.T. degree program is fully accredited by the Commission on Accreditation in Physical Therapy Education.

The physical therapy (PT) curriculum is designed to prepare highly competent and ethical entry-level physical therapists who can provide evidence-based physical therapy services. Graduates are prepared for direct patient care, and for the education of patients and their families, peers, health professionals, and the lay community. Graduates are also prepared to provide practice management and consultation services.

Admission to the PT program is competitive because of available academic and clinical resources. One of the admission requirements is documentation of at least 10 hours of patient-related PT exposure, and a positive recommendation from the supervising licensed physical therapist on the documentation form available from the Admissions Department. Successful applicants usually possess strong records in the following areas: science and math grade point average (GPA), scholastic aptitude test scores, extra-curricular leadership/participation/community service, PT exposure and positive recommendation(s), overall GPA.

Most students are admitted as freshmen. Freshman-admit PT majors must maintain full-time status and follow the curriculum

** Capstone Experience: Each student is required to propose and execute a quality master's-level research project that culminates in a thesis. This process begins in the first semester of senior year with OT 493: Research Methods. During the second semester of senior year, students will make application to either the Departmental or Institutional Review Board. The thesis is written and publicly defended during the graduate year. Six credits are awarded for the thesis via a two-semester course sequence, OT 593 and OT 594.*

(including all internships) as described in the catalog. Freshman-admit PT majors complete the M.P.T. degree program in five-years. Freshman-admit PT majors must enroll at The University of Scranton for all science cognate and major courses. **Advanced placement (AP) credits cannot be used to satisfy the biology, chemistry, physics or PT course requirements specified in the PT curriculum.**

Applicants with previous college experience are admitted as transfer students. Placement in the curriculum for transfer students is evaluated individually for each applicant. Transfer students are expected to enroll as full-time students beginning with the Third Year (Professional Studies). Once transfer students have begun Third Year (Professional Studies), they must follow the curriculum (including all internships) as described in the catalog and complete the MPT degree program in three years. Transfer students normally enroll for *all* PT Department courses listed in the PT curriculum.

Students continue in the PT major as long as the following criteria are maintained (students do not need to re-apply to advance to Professional Studies):

- Successfully complete all general education courses (as specified in the PT curriculum) as per university regulations specified in the catalog.
- Achieve a letter grade of C or better in all cognate science and PT Department courses (as specified in the PT curriculum).
- Achieve the following minimum cumulative grade point averages: First Year, 2.50; Second Year, 2.75; Third Year, 2.85; Fourth and Fifth Years, 3.0.
- Provide documentation of 70 hours of physical therapy patient contact experience before the first day of the fall term Third Year (this is in addition to the 10 hours patient-related PT exposure that were required for admission to the program; students must use documentation form available from P.T. Department). All experiences must be supervised by a licensed physical therapist.
- Achieve a grade of S (Satisfactory) for each clinical internship specified in the PT curriculum.
- Achieve a minimum grade of C on the Comprehensive Exam given Fall term of the Fifth Year.
- Demonstrate professional behavior that conforms to the APTA Code of Ethics and the physical therapy licensure requirements of the Commonwealth of Pennsylvania.
- Maintain current, valid CPR and first aid certification.
- Provide evidence of current (at least annual) physical exam (including personal medical and health coverage information, annual TB screening, Hepatitis B verification or declination and immunization record).

Students are required to complete several full-time clinical internships as specified by the PT curriculum. Internship sites are located throughout the United States, but predominantly in Pennsylvania and the surrounding states. Costs associated with travel, housing, meals, liability insurance, uniforms, etc. are the responsibility of the student.

Students who do not already possess a bachelor's degree will receive a Bachelor of Science in Health Sciences upon successful completion of all PT curriculum requirements at the end of the Fourth Year. This degree does not qualify students to sit for licensure examination or to practice physical therapy.

*Math Options for Physical Therapy Majors**

1. Students with a B+ average in high school math (through trigonometry or pre-calculus) and a score of less than 590 on the SAT in math will be enrolled in Math 103.
2. Students with a B+ average in high school math (through pre-calculus) and a score of 590 or greater on the SAT in math will be enrolled in Math 114.
3. AP credit may be awarded in Math 114 on the basis of the CEEB exam; no AP credit is available for Math 103 on the basis of the CEEB exam.

Challenge Examinations for Physical Therapist Assistants

Physical therapy majors who are physical therapist assistants (PTA) and have graduated from a PTA program accredited by the Commission on Accreditation in Physical Therapy

* *The University's Mathematics Placement Procedures may overrule options (1) and (2).*

Education may petition to be exempt from the following courses by challenge examination.

- PT 340 Basic Techniques in Patient Management (2 credits lecture, 1 credit lab)
- PT 376 Therapeutic Modalities I (1 credit lecture, 1 credit lab)
- PT 378 Therapeutic Modalities II (1 credit lecture, 1 credit lab)

Challenge examinations will include, at a minimum, all final written and practical examinations covering all content areas normally given for each course. Students must achieve a score of at least 77% (C) in all content areas to pass the examinations and earn the exemption. Majors who are PTAs and who wish to challenge any of the courses listed above should submit their request in writing to the PT Department Chair. The request must be submitted by the end of the quarter for the semester preceding the semester during which the student would normally take the course.

Course Descriptions

PT 245 3 cr.
Principles of Human Anatomy
(PT majors only) An introduction to human gross anatomy emphasizing a systemic approach to the histological and morphological concepts of the skeletal, muscular, circulatory, and nervous systems. An introduction to normal human movement with emphasis on joint arthrokinematics and the mechanics of muscle action is also presented. Two hours lecture, two hours lab/week.

PT 290 2 cr.
Clinical Education Seminar I
This course includes an overview of the history, current practice, and emerging issues related to the profession of physical therapy. Students conduct interviews and present information on practice settings and health care team members to gain a better understanding of the roles and responsibilities of the physical therapist. Includes a comprehensive examination of medical terminology and *20 hours service learning.* Two hours lecture/week.

PT majors with junior status:

PT 340 3 cr.
Basic Techniques in Patient Management
This course is designed to instruct the learner in basic patient-management skills including: management of emergencies and critical incidents, draping, positioning, bed mobility, body mechanics, transfers, gait-assistive device training, patient interviewing, equipment management, sterile technique, wound care, and universal precautions. Laboratory exposure for demonstration and practice of all techniques is provided. Two hours lecture, two hours lab/week.

PT 342 3 cr.
Management of the Elderly
A study of the responsibilities of the physical therapist with the well elderly. Emphasis on prevention of illness, injury, or disease through effective and timely intervention will be covered. A systematic approach to normal aging is also presented. Three hours lecture/week.

PT 344 1 cr.
Clinical Anatomy Review
A review of human anatomy for physician assistant students with emphasis on clinical anatomy. A regional approach emphasizing skeletal, muscular, circulatory, nervous structures comprising the head, neck, truck, extremities, thorax and abdominal cavities will be examined. Human prosections are included. Registration limited to visiting physician assistant students. Meeting dates and times by arrangement with instructor.

PT 345 4 cr.
Advanced Human Anatomy for Physical Therapy
An in-depth study of gross human anatomy emphasizing a regional approach to the structural and functional relationships of skeletal, muscular, circulatory, and nervous structures comprising the head, neck, trunk, and extremities. Organic systems relevant to physical-therapy practice are also examined. Human dissections are included. Two hours lecture, four hours lab/week.

PT 347 1 cr.
Applied Neuroscience Laboratory for PT
Application of neuroscience principles to understanding of clinical manifestations of neurological dysfunctions and evaluative techniques. Course will include an anatomical study of clinically relevant parts of the central and peripheral nervous systems. Two hours lab/week.

PT 350 3 cr.
Introduction to Therapeutic Exercise
This course introduces concepts of fitness and exercise as it pertains to healthy individuals and those with various pathological conditions. The course prepares students to design and imple-

Master of Physical Therapy (M.P.T.)

	Department and Number	Descriptive Title of Course	Fall Cr.	Int. Cr.	Spr. Cr.	Sum. Cr.
First Year (Pre-professional Studies)						
COGNATE	BIOL 110–111	Structure & Function Human Body	4		4	
COGNATE	CHEM 112–113	General & Analytical Chem I–II	4.5		4.5	
GE WRTG–SPCH	WRTG 107–COMM 100	Composition–Public Speaking	3		3	
GE C/IL	C/IL 102	Computing and Information Literacy	3			
GE QUAN	MATH 103 or 114	Pre-Calculus OR Calculus		4[3]		
GE PHIL-T/RS		Introduction to Philosophy–Theology I	3		3	
GE HUMN	HUMN ELECT	Humanities Electives		3[3]	3	
GE FSEM	INTD 100[1]	Freshman Seminar	1			
			18.5	7	17.5	
Second Year						
MAJOR	PT 245	Principles of Human Anatomy			3	
MAJOR	PT 2901	Clinical Educ. Seminar I			2	
COGNATE	BIOL 245	General Physiology	4.5			
COGNATE	PHYS 120–121	General Physics	4		4	
COGNATE	PSYC 110–221	Fund. Psych.–Childhood/Adol.	3		3	
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	6			
GE PHIL-T/RS	PHIL-T/RS ELECT	Philosophy or T/RS Elective		3[3]		
GE HUMN	HUMN ELECT	Humanities Electives			6	
			17.5	3	18	
Third Year (Professional Studies)						
MAJOR	PT 340	Basic Tech. in PT Mgmt.	3			
MAJOR	PT 342	Mgmt. of the Elderly			3	
MAJOR	PT 345	Adv. Human Anatomy for PT	4			
MAJOR	PT 350	Intro. to Therapeutic Exercise	3			
COGNATE	BIOL 348	Neurophysiology			3	
MAJOR	PT 347L	Applied Neuroscience Lab for PT			1	
MAJOR	PT 351	Orthopaedic PT			4	
MAJOR	PT 360	Clinical Sciences I			4	
MAJOR	PT 375	Kines./Pathokines for PT	3			
MAJOR	PT 376/378	Therapeutic Modalities I, II	2		2	
MAJOR	PT 390[1]	Clinical Educ. Seminar II			1	
			15		18	
Fourth Year (Summer)						
MAJOR	PT 480	PT Internship I				2
Fourth Year						
MAJOR	PT 440	Org. and Mgmt. in PT (W)			3	
MAJOR	PT 452/453[2]	Advanced Clinical Skills	0-2		0-2	
MAJOR	PT 455	Pediatric Development			3	
MAJOR	PT 456	PT App. to Neuro. Popul.			4	
MAJOR	PT 460	Clinical Sciences II	3			
MAJOR	PT 465	Psyc./Soc. Aspects of Disabilities (D)	3			
MAJOR	PT 470	Cardiopul. PT	4			
MAJOR	PT 477	Teaching in PT (W)	2			
MAJOR	PT 482	Prof. Development (opt.)			(2)	
MAJOR	PT 490[1]	Cl. Edu. Seminar III			1	
MAJOR	PT 493	Intro. to Research			3	
GE QUAN	PSYC 210	Statistics in the Behavioral Sciences	3			
			15-17	14-16 (18)		
Fifth Year (Summer)						
MAJOR	PT 580	PT Internship II				3
Fifth Year						
MAJOR	PT 552[2]	Advanced Clinical Skills	0-2			
MAJOR	PT 555	Correlative Rehabilitation	4			
MAJOR	PT 556	Motor Control/Motor Leatning	3			
MAJOR	PT 581	PT Internship III			12	
MAJOR	PT 582	Prof. Development (opt.)	(2)			
MAJOR	PT 584	Special Topics in Health Care	2			
MAJOR	PT 590	Clinical Educ. Seminar IV	1			
MAJOR	PT 593	Res. Design & Implementation	2			
			12-14 (16)		12	

TOTAL: 174.5 CREDITS

[1] *Twenty hours of service-learning integrated in these courses.*

[2] *A minimum of two 1-credit advanced clinical skills required (maximum of three recommended) to complete degree requirements.*

[3] *If special circumstances (e.g., AP credits) lighten fall or spring loads, intersession courses may be taken during fall or spring terms.*

ment therapeutic exercise regimens. Concepts such as: strength, flexibility, endurance, power and skill are discussed. Effects of aging, disuse, immobilization, and nutrition are discussed. Laboratory activities prepare students to assess strength and flexibility. Two hours lecture, two hours lab/week.

PT 351 4 cr.
Orthopaedic Physical Therapy
This course prepares the student to practice entry-level orthopaedic physical therapy. Evaluation and treatment of musculoskeletal system dysfunction utilizing exercise and manual therapy is emphasized. Students learn to identify specific musculoskeletal problems, and plan and implement appropriate physical therapy interventions based on evidenced-based findings. Students learn to ascertain whether the patient presents with an appropriate musculoskeletal problem or needs referral. Two hours lecture, four hours lab/week.

PT 360 4 cr.
Clinical Sciences I
This course presents an overview of selected diseases and disorders for which patients are commonly referred for physical-therapy evaluation and treatment. The basic principles of pathology are integrated with current concepts of patient management. Relevant medical and surgical interventions will be reviewed with emphasis on the team approach of patient care and rehabilitation. Four lecture hours/week.

PT 375 3 cr.
Kinesiology and Pathokinesiology for Physical Therapy
This course presents a study of normal movement, and movement dysfunction associated with selected forms of pathology. Emphasis is placed on the mechanics of muscle actions and joint arthrokinematics, and biomechanical factors are discussed. Normal and pathological gaits are studied. Two hours lecture, two hours lab/week.

PT 376 2 cr.
Therapeutic Modalities I
This course prepares the student for the safe, effective and appropriate application of therapeutic heat, cold, light, water, intermittent compression, and massage. The scientific basis for the use of these modalities is reviewed and correlated to issues of clinical evaluation, decision-making, and application. Laboratory exposure to these modalities is provided. One hour lecture, two hours lab per week.

PT 378 2 cr.
Therapeutic Modalities II
This course prepares the student for the safe, effective and appropriate use of electrotherapeutic modalities. Students learn to use electrotherapeutic modalities for examination, evaluation, diagnosis, prognosis and intervention. Principles of electrophysiologic testing and the role of electrophysiologic testing in neuromuscular diagnosis are presented. Students participate in laboratory experiences with electrotherapy and electrophysiologic testing apparatus. One hour lecture, two hours lab/week.

PT 390 1 cr.
Clinical Education Seminar II
This seminar prepares students for their first clinical internship. Orientation to the clinical education component of the curriculum provided, focusing on development of students' objectives, goals and responsibilities. Emphasis on gaining familiarity with the medical record, conducting patient interviews, developing active listening skills and acquiring beginner-level competency in professional documentation is included. *Includes service-learning component.* One hour lecture/week.

PT majors with senior status:

PT 440 3 cr.
(W) Organization and Management in Physical Therapy
Introduction to the management process with specific information devoted to inter- and intra-departmental relationships, leadership style and theories, motivation, and decision making. Topics related to administrative policies/procedures in the provision of patient services are discussed. Student group presentations on specific management topics are required. Three hours lecture/week.

PT 452/453/552 1 cr.
Advanced Clinical Skills
These courses provide the opportunity for advanced study in a variety of clinical areas. They are available for fourth and fifth year PT majors. Two courses are required, and a maximum of three is suggested (one per semester). Course offerings vary each semester, and students are free to choose from among the courses offered.

PT 455 3 cr.
Introduction to Developmental Pediatrics
This course is a comprehensive overview of pediatric physical therapy. Discussions on normal

and abnormal development, theories of motor development, use of developmental assessment tools, and management of common disorders will comprise lecture and lab sessions. Instruction methods include: video, hands-on experience, case studies, and lab demonstrations. Two hours lecture, two hours lab/week.

PT 456 **4 cr.**
PT Approaches to Neurological Populations
This course includes the study of classic and contemporary approaches to examination/evaluation and intervention with neurological populations. Concepts of normal/abnormal movement, cognition, and perception are discussed from a systems perspective. Case studies, lab demonstrations, videos, literature review, and field trips to local rehabilitation facilities are incorporated into the learning experience. Two hours lecture, four hours lab/week.

PT 460 **3 cr.**
Clinical Sciences II
This course covers diagnosis, etiology, medical evaluation and treatment of diseases and disorders of the central and peripheral nervous system. Discussion of specific disorders highlights medical diagnosis methods for the specific diagnoses discussed including neuroradiology and neuropharmacologic principles. Issues relevant to differential diagnosis and physical therapy evaluation and intervention are discussed. Three hours lecture/week.

PT 465 **3 cr.**
(D) Psychosocial Aspects of Physical Disabilities
Emphasis on understanding the psychological, behavioral, emotional and cognitive influences that impact rehabilitation outcomes. Concepts regarding life stage development, stages of adjustment, strategies for intervention, sexuality, family adjustment and terminal illness will be explored. The impact of societal beliefs and values about health, wellness and disability will be discussed, as well as the impact of cultural influences, gender roles and religion. Three hours lecture/week.

PT 470 **4 cr.**
Cardiopulmonary Physical Therapy
An overview of the human physiological response to physical activity. Emphasis is placed on acute and chronic adaptations of body systems to activity in various states of health and disease throughout the lifespan. Principles of cardiopulmonary disease prevention, treatment, and rehabilitation are examined. Laboratory experiences are designed to illustrate these principles and develop skills necessary for their implementation. Three hours lecture, two hours lab/week.

PT 477 **2 cr.**
(W) Teaching in Physical Therapy
Discussion of teaching, learning theories and the roles of the PT as a teacher is offered. Development and implementation of learning experiences (emphasis is on the student as a facilitator of patient learning) and the process of presenting information are included. Two hours lecture/week.

PT 480 **2 cr.**
Internship I
A five-week, full-time introduction to the practice of physical therapy. The application of basic physical-therapy procedures, modalities and patient-management skills will be emphasized in a supervised general-hospital, outpatient, orthopaedic, sports-medicine or industrial-medicine setting. An in-service or case presentation, in addition to a reflective case study will be required during the internship.

PT 482 / 582 **2 cr.**
Professional Development
PT majors in the fourth or fifth years may explore an area of special interest via this optional, mentored independent study course. Approval of the PT Department Chair is required. Optional.

PT 490 **1 cr.**
Clinical Education Seminar III
This seminar will further prepare students for subsequent internships and ongoing professional practice. The goals, objectives, expectations and responsibilities of internship II will be clarified. Additional topics include: analysis of learning styles, assertiveness training, and increased awareness of factors contributing to patient's behavior. Case presentations utilized to promote the development of clinical problem solving. *Includes service-learning component.* One hour lecture/week.

PT 493 **3 cr.**
Introduction to Research
Introduction to research including design selection, general concepts of data collection and analysis, and the critical review of literature relevant to the field of physical therapy. Students are required to formulate a research hypothesis and submit a formal research proposal. Methods of research presentation are discussed. Three hours lecture/week.

PT majors with graduate status:

PT 555 4 cr.
Correlative Rehabilitation
This course is designed to integrate foundational knowledge with clinical practice in the areas of: ICU/acute care management, orthotics, prosthetics, oncology, head injury, spinal cord injury, and women's health. Physical therapy examination/evaluation and interventions are addressed as they pertain to each area. Demonstrations, videos, literature review, case studies, equipment management, clinical guest lecturers, and field trips are included. Three hours lecture, two hours lab/week.

PT 556 3 cr.
Motor Control/Motor Learning
This course introduces the science of motor control and motor learning including neuromotor processes that underlie normal and abnormal movement. Motor control issues focusing on information processing, attention, motivation, perception, balance, and upper extremity reach/grasp are examined. Principles of motor learning and mechanisms of skill acquisition are discussed. Current research and clinical implications are analyzed. Two hours lecture, two hours lab/week.

PT 580 3 cr.
Internship II
A six-week, full-time, intermediate-level internship. The application of more highly developed therapeutic skills and techniques will be emphasized in a supervised general hospital, out patient, orthopaedic, sports medicine, pediatric, industrial medicine, home care, skilled nursing, or private practice setting. An in-service and reflective case study required.

PT 581 12 cr.
Internship III
Two eight-week, full-time, advanced-level internships. Increasing independence and decision making skills will be stressed in a wide variety of clinical practice settings. Emphasis will focus on the synthesis and application of didactic coursework directed at the goal of achieving entry-level clinical competence. An administrative project, case presentation or in-service are required in addition to reflective case study.

PT 584 2 cr.
Special Topics in Health Care
A discussion-centered course; the content will include the more contemporary issues in health-care delivery. Emphasis on the provision of physical-therapy services will be covered. Two hours lecture/week.

PT 590 1 cr.
Clinical Education Seminar IV
This final seminar will focus on establishing goals, objectives, expectations and responsibilities for the final two full-time internships. Topics include: job searching, resume writing, interviewing skills and employment options. Legal and ethical clinical practice will be discussed and state practice acts reviewed. Students will develop a personal portfolio. One hour lecture/week.

PT 593 2 cr.
Research Design and Implementation
Students refine and implement the research proposals submitted in PT 493. The collection of data with appropriate statistical analysis is completed and a formal written presentation in approved format of the methods, results, and conclusion is required. All research initiated is subject to the rules and policies of the University with regard to the human or animal subjects.

Brennan Hall

Dexter Hanley College

Dexter Hanley College has been providing quality education for adult students since 1923. Dexter Hanley College continues this tradition of student-centered administration that supports adults in achieving their academic goals.

Dexter Hanley College provides services for visiting students, students in grades six through twelve, as well as continuing full-time and part-time students. Additionally, Dexter Hanley College administers the University's evening, intersession and summer sessions.

Mission Statement

Dexter Hanley College, the undergraduate college for adult and non-traditional students, is committed to carrying on the Jesuit tradition by offering quality programs, quality services and the opportunity for students to reach their educational goals. Dexter Hanley College is dedicated to serving the local community and continually updates its programs and services in response to the community's ever-changing needs. The baccalaureate degrees earned by DHC students and the faculty who teach for DHC are the same as for the other University of Scranton undergraduate colleges. In addition, DHC offers credit certificate programs and associate degrees that apply towards the baccalaureate degrees.

Dexter Hanley College serves primarily the following five groups:

1. Adults who wish to pursue an undergraduate degree
2. Students who want to obtain an associate degree or certificate
3. Adults who want to improve their professional competence and/or to prepare themselves for new careers
4. Adults who want to take advantage of educational programs for enrichment
5. Visiting students from other colleges and universities

Dexter Hanley College is dedicated to helping students succeed by offering scholarship opportunities, life-experience credits, academic and career counseling, and academic support services.

Degree Programs

Dexter Hanley College students may attend courses offered in the day or at night. Students who can attend courses scheduled for mornings and afternoons may choose from the following degree programs in Group 1 or Group 2. Students who plan to attend only in the evening may select from Group 2.

The Dexter Hanley College baccalaureate programs have the same general-education requirements as the corresponding programs in The College of Arts and Sciences, The Kania School of Management, and The Panuska College of Professional Studies. It should be noted, however, that the physical-education requirement is waived for Dexter Hanley College students.

Curricular requirements for each degree program will be found on pages indicated in the index at the back of this catalog. Math placement testing may determine additional math prerequisites in addition to those specified by a degree program.

Degrees During the Day

In general, courses that comprise the major for these degree programs are offered during the daytime only.

Bachelor's Degree

Accounting Information Systems
Biochemistry
Biology
Biophysics
Chemistry
Chemistry/Business*
Chemistry/Computers*
Computer Engineering*
Computer Science*
Counseling and Human Services*
Early Childhood Education*
Elementary Education*
Secondary Education*
Electrical Engineering*
Electronics/Business*
Exercise Science
English*
Environmental Science
Foreign Languages
Gerontology*
International Business*
International Language Business*
International Studies*
Mathematics
Medical Technology
Neuroscience
Nursing*
Physical Therapy
Physics
Pre-Engineering
Political Science*
Psychology
Special Education*
Theatre

Associate Degree

Electrical Engineering*
Computer Engineering

** Some courses in this major are available evenings.*

Day or Evening Degree Programs

Major, cognate and general education courses for these degrees are available either night or day.

Bachelor's Degrees

Accounting
Communication
Computer Information Systems
Criminal Justice
Economics
Finance
Health Administration
History
Human Resources Studies
Liberal Studies
Management
Marketing
Media & Information Technology
Nursing for R.N.s
Operations Management
Philosophy
Sociology
Theology/Religious Studies

Associate Degrees

Associate in Arts
Business
Computer Information Systems
Criminal Justice
Gerontology
Health Administration
Human Services
Political Science
Sociology

Admission Information

Application for Admission

Admission to Dexter Hanley College at The University of Scranton is based on the applicant's academic record, life experiences and motivation to continue education. Application forms may be obtained from the Admissions Office, Dexter Hanley College (DHC) or may be requested by phone at (570) 941-5813 or by fax at (570) 941-5819. Additional information is available on the Web at www.scranton.edu/dhc.

The Admissions Office operates on a rolling admissions plan which processes applications on a continual basis as received. All candidates are informed of the admission decision within three weeks after the completion of their files of supporting credentials.

To complete the application file, the candidate must have the following sent to Dexter Hanley College:

1. A completed application form accompanied by the $20.00 application fee;
2. An official high school transcript (and Graduate Equivalency Diploma (GED), including scores, when applicable).
3. Personal statement detailing how enrolling at the University will contribute to the individual's goals.
4. Official transcripts, mailed directly from every college or university attended (if applicable) no later than three weeks before the beginning of classes in the semester the student wishes to enroll.

Applicants with a minimum of 15 earned credits from an accredited college or university do not need to submit high school transcripts or GED scores.

Applicants are encouraged to meet with an admissions counselor prior to registration and can make an appointment by contacting the Office of Admissions at (570) 941-5813.

In general, advanced standing will be granted for previously completed courses when they are equivalent or comparable to courses at the University, the student received grades of C or higher, and the courses meet requirements for the degree program. If the student changes major at a later date, another review of transfer credits will be made at that time, and the student will be given a written evaluation clearly indicating the transfer credits that apply to the new major. In all cases, for a bachelor's degree, transfer students must earn a minimum of 63 credits at the University of Scranton. Once a transfer student matriculates, the University policy on course transfers applies.

Conditional Admission

A student may be admitted conditionally if official transcripts have not been received in the Admission Office before classes begin. The student whose official records have not been received within five weeks after classes have begun will not be permitted to register for a subsequent term.

Upon receipt and evaluation of the official academic transcripts, the Admissions Office

will notify the student regarding acceptance or rejection. The student who is rejected will be permitted to finish the semester if he/she wishes to do so, but will not be allowed to register for subsequent terms. The student who is accepted will be subject to all rules, regulations and policies of the University. Because official academic transcripts are necessary for effective academic advising, the student who enters under the conditional admission policy takes full responsibility for any errors in course selection and for all extra costs involved in making changes in class registrations.

Second Baccalaureate Degree

University of Scranton graduates and persons with good scholastic records and a baccalaureate degree from a regionally accredited institution, who wish to earn a second baccalaureate degree at The University of Scranton, must apply to Dexter Hanley College.

Candidates for a second baccalaureate degree are expected to complete a minimum of 30 credits at The University of Scranton beyond the completion of the studies for the first degree, of which at least 15 credits must be in the second degree's major. Students must complete all requirements for the second degree not covered by the first degree program for the major and cognate. All prerequisites for major and cognate courses must also be completed.

No semester hours from the first baccalaureate degree can be used toward this 30-credit requirement. Grades for courses taken by University of Scranton graduates after completion of the requirements for the first baccalaureate degree will have no effect on the final grade-point average of the first degree.

Certificate Programs

Students wishing to complete a certificate program in Dexter Hanley College must meet the requirements specified by the appropriate department.

Self-Improvement

Students who do not plan to work toward a degree or a certificate must also file an application for admission and must arrange for official transcripts to be sent to the Dexter Hanley College Admissions Office.

Visiting Students

Students matriculated in other colleges or universities who wish to take courses for credit at The University of Scranton should present the written approval of their dean or other authorized administrator for all courses taken at The University of Scranton. The University of Scranton does not guarantee transferability of its courses. ***Reader courses are not available for visiting students.***

Visiting students must complete an application form but are not required to submit transcripts. Visiting students taking more than one course in any semester are required to attend orientation.

Telecourses

Telecourses provide students with an opportunity to study with a more flexible schedule. Courses are normally shown one hour per week on the regional PBS affiliate, WVIA-TV. Meetings with instructors are reduced from the typical three hours per week to no more than six meetings per semester. These courses are geared to highly motivated students capable of doing independent work. (Courses offered vary each semester.)

Online Courses

Many courses at the University require that students have access to a computer and the Internet for assignments, research, discussion groups, etc. The University provides each student with an account number and there are computer labs on campus for student use.

In addition, a number of faculty are using CourseInfo (Blackboard) to support or to teach the entire course. CourseInfo is the standard university web-courseware tool that enables an instructor to supplement a course with online materials and activities, or to deliver a course solely online. CourseInfo contains modules for announcements, course documents, online tests/quizzes, discussion board, chat and assignments.

At The University of Scranton, CourseInfo is also used to deliver courses solely online. The class documents are posted on the web and the students are responsible for submitting the assignments using the provided tools in CourseInfo. There are virtual office hours via the chat room when the instructor can

communicate with one or several students simultaneously.

To find out more about CourseInfo, the computer equipment you need, and what you need to know before taking an online course, visit The University's CourseInfo page located at www.scranton.edu/ci.

Dexter Hanley College Advising Center

In Dexter Hanley College, academic advising begins with admission interviews, registration and new-student orientations. Ongoing advising services that support students through their years of study to graduation provide all students, including transfer and evening students, with stability and continuity in their academic planning. Dexter Hanley College students are assigned faculty advisors by their choice of major. They are also assisted by staff advisors who are available twelve months a year during day and evening office hours.

The staff in Dexter Hanley College, Career Services and the Counseling Center are also available for consultation regarding academic, career and personal issues.

Campus Life

Students should consult the Dexter Hanley College Student Handbook for information about such practical matters as I.D. cards, parking permits and opportunities for participation in various aspects of University life. Dexter Hanley College participation in campus government is provided though the Dexter Hanley College Student Government and through Dexter Hanley College student representation on the University Council.

Academic Regulations

Dexter Hanley College students should consult this catalog for academic regulations common to all four undergraduate colleges of the University. They should be aware of the following policies that relate specifically to those enrolled in Dexter Hanley College.

Auditors

Dexter Hanley College students may register as auditors with the approval of the dean. Entry of the audit grade on the transcript assumes satisfactory attendance at class meetings. The student should consult with the instructor as to what constitutes satisfactory attendance. Auditors are not responsible for assigned work, quizzes, or examinations, and they receive no credit for the course. Students not enrolled as auditors who wish to change their status to that of auditor must do so by deadlines specified in the academic calendar on the inside front cover of this catalog. Auditing students pay the regular tuition and fees.

Credit for Academically Relevant Learning

Many students have acquired "experiential learning" outside a formal college or university classroom in jobs, military service or non-accredited institutions.

Dexter Hanley College provides opportunities for students to earn credit for such experiences. A maximum of 30 credits will be awarded for extra-institutional learning, excluding military credit. This includes CLEP, Excelsior College Examination, ACE-approved credit, portfolio credit, and PONSI credit. (Advanced-placement credit is considered separately.)

Students wishing to have this learning assessed for possible credit will enroll in a one-semester course, EDUC 101, to document relevant experiences and the knowledge gained from them for departmental review. Faculty evaluators from the appropriate department(s) will evaluate the portfolio and may recommend a credit award for students' learning. For further information, contact a Dexter Hanley College advisor at (570) 941-7580.

EDUC 101 **3 cr.**
Fundamentals of Adult Development and Experiential Learning
The course provides learners with a basic knowledge of adult learning and development theories as a framework for understanding themselves as learners. Through self-assessment of their learning styles, personality factors, value systems, interests, and previously acquired learning, they will gain an understanding of the factors which facilitate and/or inhibit their pursuit of higher learning. This course also assists learners in developing a portfolio of their learning experiences to be reviewed for college. Dexter Hanley students only; permission of instructor required.

College-Level Examination Program (CLEP)

The College-Level Examination Program has been established to enable students of all ages to earn college credit by examination. Through the CLEP tests, applicants may gain credit in many academic subjects applicable to their degree programs. Individuals who wish information about these examinations should consult the Dexter Hanley College Director of Advising or write directly to the Program Director, College-Level Examination Program, College Entrance Examination Board, Box 1824, Princeton, N.J. 08540.

Challenge Examinations for Physical Therapist Assistants

Physical therapy majors who are physical therapist assistants (PTA) and have graduated from a PTA program accredited by the Commission on Accreditation in Physical Therapy Education may petition to be exempt from the following courses by challenge examination.

- PT 340 Basic Techniques in Patient Management (2 cr. lecture, 1 cr. lab)
- PT 376 Therapeutic Modalities I (1 cr. lecture, 1 cr. lab)
- PT 378 Therapeutic Modalities II (1 cr. lecture, 1 cr.lab)

Challenge examinations will include, at a minimum, all final written and practical examinations covering all content areas normally given for each course. Majors who are PTAs must achieve a score of at least 77.00% (C) in all content areas to pass the examinations and earn the exemption. The PT Department professor responsible for the course will give and grade the examinations.

Upon successful completion of challenge examination(s), the designation CR will be applied to the student's transcript for the appropriate course(s). Students who successfully complete challenge examination(s) and receive CR designations for corresponding courses are not required to take additional courses to make up the credits successfully challenged.

Majors who are PTAs and who wish to challenge any of the courses listed above should submit their request in writing to the PT Department Chairperson. The request must be submitted by the end of the quarter for the semester preceding the semester during which the student would normally take the course.

Dean's List

Since many students in Dexter Hanley College are enrolled on a part-time basis, the Dean's List criterion for this school differ somewhat from those of the day schools. Students in DHC may earn Dean's List distinction provided they carry at least two courses (at least 6 credits) during the semester and earn at least a 3.50 grade-point average with no grade code of NG, I, C-, D+, D, F or U. The Dean's List is published at the end of the fall and spring terms each year.

Sequences of Study/Prerequisites

Students enrolled in degree programs in Dexter Hanley College are strongly advised to follow the sequence of studies listed for their chosen major as closely as possible. So students may be assured of having the adequate background for the successful completion of certain courses, prerequisite courses are sometimes listed. The course descriptions in the earlier pages of this bulletin contain the necessary information on prerequisites.

In some cases practical experience may compensate for the lack of prerequisite courses, but such requests for exceptions must be approved by the departmental advisor. Students should also check with their departments for specific scheduling information on course sequences in their major. Since not all required courses are offered each semester, careful planning should be done in advance to assure smooth progress through the degree program.

Readmission

Once accepted into Dexter Hanley College, a student is expected to maintain continuous enrollment. The dean may approve requests for one, and, on occasion, two consecutive semester leaves of absence. Students who do not attend the University for a semester or more, without an approved leave of absence, may be required to complete a full application for readmission. This may also result in a student's needing to fulfill new curricular requirements. To apply for re-admission, contact Dexter Hanley College directly at (570) 941-7580, not the Admissions Office.

Readmission of Dismissed Students

If a Dexter Hanley College student who has been dismissed from The University of Scran-

ton wishes to apply for readmission to the University, the student may do so no sooner than one full semester after the semester in which the dismissal took place. Readmission is not automatic; the student will need to demonstrate that the conditions which led to dismissal will not present a continuing problem. If a student is dismissed a second time from the University, readmission is not permitted. Students who want to be readmitted need to apply to Dexter Hanley College directly, not to the Admissions Office.

The University of Scranton/ Marywood University Cross-Registration Program

After completing 30 credits at The University of Scranton, full-time Dexter Hanley College students in good academic standing may take two courses (equivalent to 6 credits) at Marywood during the calendar year (January to December). Part-time students can take one Marywood course for every five University of Scranton courses, for a maximum of six Marywood courses. Interested students should contact the Dexter Hanley College Advising Center.

Dexter Hanley College Tuition and Fees 2003-04

Full-Time Tuition and All Intersession Courses, per credit	$590
Part-Time Tuition, per credit	$494
University Fee for Full-Time Students, per semester	$540
University Fee for Part-Time Students, per semester	$35
Royal Card Photo	$20
Schedule Change Fee, per change form	$15
Health-Service Fee for Full-Time Students, per semester	$65
Recreational Complex Use Fee (optional for part-time students), per semester	$60
Application Fee	$20
Orientation Fee	$30
Prior-Learning-Portfolio Review Fee, per credit	$30
Credit by Exam, per credit	$75
Prerequisite Challenge Exam, per exam	$15
Nursing Clinical Practicum, per clinical course	$110
Graduation Fee	$200

Tuition and Fee Notes:

- The orientation fee is refunded only when a student withdraws from the University prior to orientation.
- Full-time students who drop to part-time status after the 100% refund deadline will not have an adjustment in tuition and fees for the semester.
- Full-time students in Dexter Hanley College who can justify having the recreational and athletic (both parts of the University fee) and health services fee waived may petition the Dean of the College in writing for a waiver. This must be done each semester.

Alumni Discount

Individuals who have previously earned a baccalaureate degree from The University of Scranton and are taking undergraduate, credit-bearing courses are eligible for 50% tuition reduction.

Family Tuition Reduction

Whenever at least one dependent child from a family or a spouse is in attendance at the University as a full-time undergraduate student, a special family tuition-reduction policy will apply to a parent/spouse enrolled as a full-time student in Dexter Hanley College. The amount of tuition credit that will be awarded each semester will be calculated after other financial aid has been applied by the Bursar's Office personnel. Forms and additional information may be obtained from the Bursar's Office or from Dexter Hanley College.

Tuition Policy for Senior Citizens

Persons 60 years of age or older may audit undergraduate courses at the University through Dexter Hanley College at no tuition charge on a "space-available" basis. Fees and other costs of courses (e.g., textbooks) are assessed at the normal rate. The student must complete the senior-citizen-tuition waiver form and the registration process, including returning the remittance form.

Persons 60 years of age or older may take undergraduate courses for credit through Dexter Hanley College at 50 percent tuition. These reductions are applicable only after the person has applied for and received any form of financial assistance normally available (e.g., state and federal assistance, employer reimbursement). The student must complete the senior-citizen-tuition waiver form and the registration process, including returning the remittance form.

Senior-citizen students must complete the full application process, including submission of all official transcripts.

Financial Aid for Dexter Hanley College Students

Dexter Hanley College students are eligible to apply for several forms of federal and state financial aid. Eligibility for all grants, loans, and institutional aid requires the student to submit the University Application for Scholarship and Financial Aid and the Free Application for Federal Student Aid (FAFSA). The student must also submit signed copies of the tax information for the student and spouse/parent (if required). Priority deadline for incoming students is May 1. Returning students must file by April 15.

University Aid for Dexter Hanley College Students

Accounting Scholarship

The Northeast Chapter of the Pennsylvania Society of Public Accountants has endowed a scholarship fund awarding one limited tuition scholarship each year to an Accounting major in Dexter Hanley College.

Deans' Scholarship and Loan Fund

The Dexter Hanley College Deans' Scholarship and Loan Fund provides monies for scholarships and loans to allow adult and non-traditional students who experience unexpected financial difficulties to complete their education and fulfill personal and professional goals.

The Eugene J. Donahue Scholarship *(see p. 26)*

The Rev. John J. Fitzpatrick, S.J., Scholarship *(see p. 27)*

Full-Time and Part-Time Grants

Full-time and part-time grants are awarded to Hanley College students who demonstrate need, academic progress, and enrollment status of at least 6 credits. Awards range from $500 to $3,500 per year.

The Robert L. McDevitt, K.S.G., Scholarship *(see p. 30)*

Newcombe Scholarship for Mature Women

The Charlotte W. Newcombe Foundation provides limited-tuition scholarships for mature women students completing their education in preparation for a second career. These scholarships, available to women 25 years of age or older who have completed at least 60 credits, are available in any of the schools of The University of Scranton, but each year most are awarded to women enrolled in Dexter Hanley College.

New Transfer-Student Scholarship

Transfer students who have completed at least 30 credits at their previous institution and intend to pursue full-time studies at The University of Scranton are eligible to apply for this award. This is an academic as well as need-based scholarship. The award may be renewed until graduation upon maintenance of required grade-point average.

The Oppenheim Family Scholarship
(see page 32)

Student Government Scholarship

This limited-tuition scholarship is available to DHC students with demonstrated financial need who have completed 6 or more credits (including transfer credits). Both full- and part-time students are eligible, as are DHC Student Government members. Those who are not eligible for this scholarship include students working toward a second degree and University employees with full tuition remission. Grade point average is not a consideration when considering financial need.

The Thomas P. White Scholarship
(see p. 34)

State and Federal Aid

Pennsylvania Higher Education Assistance Agency (PHEAA)

Dexter Hanley College students are eligible to apply for PHEAA grants if they are taking 6 credits a semester.

Pell Grants

Dexter Hanley College students taking at least 3 credits a semester are eligible to apply for federal grants administered under the Pell Grant program.

Federal Stafford Loan

Hanley College students are eligible to apply for Stafford Loans if they are taking at least 6 credits per semester.

RN TO B.S. IN NURSING

Dona Rinaldi Carpenter, Ed.D., *Director, R.N. Track*

Overview

The registered-nurse student is recognized as an adult learner who comes with a diversity of life experiences, education, and clinical expertise, as well as motivation and ability to learn independently and collaboratively. To facilitate advanced placement, opportunity is provided for students to validate previously acquired educational and clinical competencies.

The nursing program, accredited by the National League for Nursing Accrediting Commission, is open to all registered nurses who meet admission requirements. The registered-nurse student may enroll on either a full-time or part-time basis.

To apply for admission to the B.S. for R.N. track, students should submit the following with completed application forms and fees:

1. Official transcripts from high school, nursing school and other colleges attended.
2. A copy of current Pennsylvania Registered Nurse License.

Transcripts are individually reviewed and evaluated. Transfer courses, especially courses in the sciences, must be equivalent to courses in the nursing program at The University of Scranton (science courses taken at a non-degree program are accepted if they were taken at an affiliated college and received college credit); a grade of C or better must have been earned.

Student Policies: R.N. Track

1. Ordinarily, to continue in the nursing program, the R.N. student must enroll in a minimum of one course in each regular semester.
2. The R.N. student is expected to complete the degree requirements within seven years from the date of admission. 57 credits in Nursing are required for the

RN to B.S. in Nursing Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
First Year			
GE NSCI	CHEM 110–111	Introduction to Chemistry I–II	6
GE NSCI	BIOL 110–111	Structure and Function I–II	8
GE SPCH–WRTG	COMM 100–ENGLT 107	Public Speaking–Composition	6
GE C/IL	C/IL 102[1]	Computer and Information Literacy	3
GE PHIL-T/RS	PHIL 120[1]	Introduction to Philosophy	3
GE S/BH	PSYC 1101	Fundamentals of Psychology	3
			29
Second Year			
MAJOR	NURS 241	Perspectives in Professional Nursing	3
MAJOR	NURS 242	Nursing Related to Assess. of Health Patterns	3
COGNATE	BIO 210	Intro. to Medical Microbiology	3
COGNATE	NUTR	Nutrition	3
GE QUAN	PSYC 210 or EDUC 120	Psychological Statistics/Applied Statistics	3
GE PHIL-T/RS	T/RS 121	Theology I	3
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	6
GE HUMN	ELECTIVES	Humanities Electives	9
GE S/BH	PSYC 225	Abnormal Psychology	3
			36
Third Year			
MAJOR	NURS	Nursing Validation Credits	38.5
GE PHIL-T/RS	ELECT[1]	T/RS Elective	3
GE ELECT	PSYCH[2]–ELECT	Childhood & Adolescence–Free Elective	6
			47.5
Fourth Year			
MAJOR	NURS 471[3,4]	Community Health Nursing	3.5
MAJOR	NURS 473[4]	Synth.of Leadership Concepts in Nursing	3
MAJOR	NURS ELECT	Nursing Elective	3
MAJOR	NURS 493	Research in Nursing	3
GE HUMN	HUMN ELECT	Humanities Elective	3
GE ELECT	PHIL 2122/ELECT	Medical Ethics or Free Elective	3
			18.5

TOTAL: 131 CREDITS

[1] *Fall or spring*
[2] *Department recommendation*
[3] *Portfolio option available*
[4] *Clinical Practicum Fee*

degree, 38.5 of which may be earned by verifying current employment or graduation through an original R.N. program less than 10 years prior to acceptance. The 38.5 validation credits are posted on the student's official transcript.

3. Students must have completed at least 100 credits prior to enrollment in Nurs 493. Completion of all course work toward the baccalaureate degree is suggested prior to enrollment in NURS 473.
4. Nursing students must achieve a grade of C or better in the major and cognate courses. Once the student is enrolled, all Nursing courses must be taken at The University of Scranton.
5. Before students begin clinical work, they must submit copies of their professional malpractice-liability insurance policy, evidence of current licensure and CPR certification.
6. Students who have earned an overall GPA of 3.3 or higher may choose an accelerated track toward the M.S. in Nursing. NURS 510, 591, 593 and 595 may be taken in lieu of NURS 473, 483 and 493. Additional information is available from Dr. Carpenter, Director of the R.N. Track.
7. Dexter Hanley College students will meet the service-learning requirements by completing major courses that have a service-learning component.

LPN to B.S. in Nursing Curriculum

	Descriptive Title of Course	*Fall Cr.*	*Int. Cr.*	*Spr. Cr.*	*Sum. Cr.*
Pre-Nursing Summer Session					
WRTG 107	Composition				3
C/IL 102	Computing and Information Literacy				3
Exam: ACE II Exam available (June) – Clinical Skills Challenge every summer					13
					19
First Year					
PSYC 110	Fundamentals of Psychology	3			
NURS 241	Perspectives in Professional Nursing	3			
NURS 350	Nursing Care of the Adult I[1]	(3)			
NURS 352/352L	Mental Health Nursing (w/Lab)	5.5			
NURS 360	Pharmacology II	1			
BIOL 110/110L	Structure & Function of Human Body I (w/Lab)	4			
HUMN ELECT	Humanities Elective[2]		3		
COMM 100	Public Speaking		3		
BIOL 111/111L	Structure & Function of Human Body II (w/Lab)			4	
HUMN ELECT	Humanities Elective[2]			3	
NURS 242/242L	Nursing Related to Assessment of Health Patterns (w/Lab)			3	
NURS 262	Pharmacology I			1	
NURS 361	Pharmacology III			1	
NURS 371	Nursing Care of the Adult II[1]			(3)	
NURS 373	Nursing Care of the Childbearing Family[1]			(3)	
Exam: ACE II Exams available (January) – includes NURS 251: Nursing Related to Health Patterns			2		
		16.5-19.5	8	12-18	
Second Year (Summer)[5]					
EDUC 120 or PSYC 210	Applied Statistics OR Psych Statistics				3
HUMN ELECT	Humanities Elective[2]				3
GE ELECT	Free Elective[3]				3
PSYC 225	Abnormal Psychology[4]				3
					12
Second Year[6]					
CHEM 110	Introduction to Chemistry I	3			
NURS 450	Nursing Care of the Adult III[1]	(3)			
BIOL 110	Intro Medical Microbiology	3			
NURS 452	Nursing Care of Children and Adolescents[1]	(3)			
T/RS 121	Theology I	3			
PHIL 120	Introduction to Philosophy	3			
EXSC 220	Nutrition for Health Professions	3			
HUMN ELECT	Humanities Elective[2]		3		
T/RS 122	Theology II		3		
NURS 493	Research in Nursing			3	
PHIL 210	Ethics			3	
CHEM 111	Introduction to Chemistry II			3	
NURS 471/471L	Community Health Nursing (w/Lab)			3.5	
NURS 473/473L	Synth of Leadership Concepts in Nursing (w/Lab)			3	
NURS 475/475L	Critical Care Nursing (w/Lab)			3	
		18-21	6	18.5	
Third Year (Summer)					
PHIL-T/RS ELECT	Philosophy or Theology/Religious Studies Elective				3
GE ELECT	Free Elective[3]				3
GE ELECT	Free Elective				3
GE ELECT	Free Elective				3
					12

TOTAL: 134 CREDITS

[1] *Course will be waived if student passes the ACE II exam.*

[2] *Students must take 6 credits (two courses) from those designated as CH (History), CL (Literature), CF (Foreign Languages).*

[3] *The department recommends PSYC 221: Childhood and Adolescence.*

[4] *Recommended but not required.*

[5] *Pre-Chemistry course available.*

[6] *Other: NCLEX Review Course*

LPN TO B.S. IN NURSING

Sharon Hudacek, Ed.D., *Director, LPN to B.S. in Nursing Track*

Admissions Requirements

1. Graduation from an LPN program accredited by National League for Nursing (NLN) Accrediting Commission.
2. A current LPN license valid in Pennsylvania.
3. A passing score on advanced placement credit exams.

Admissions Procedures

1. Submit a " University of Scranton Application for Admission" to Dexter Hanley College. Information is available by calling (570) 941-5813.
2. Schedule an interview with either the Dexter Hanley College Admissions Office or a member of the Nursing Department.
3. Submit two letters of recommendation from an employer within the last five years. If you are a recent LPN graduate, these references could be a faculty member from your institution.
4. Submit a copy of a current LPN license to the Admissions Office.
5. Have official transcripts of your LPN program, high school and all previous college credits sent to the Dexter Hanley Admissions Office, The University of Scranton, Scranton, PA 18510.
6. Register for ACE I through Dexter Hanley College.

Note: Once accepted, LPNs are subject to all policies for nursing students as indicated in the University's Nursing Student Handbook.

Advanced Placement Exams

Students are accepted into the LPN to B.S.in Nursing program after they successfully complete the ACE II exams, offered in January and June of each year. After acceptance, LPNs meet with a nursing advisor to plan their curriculum.

If the student successfully completes the optional ACE II (Medical/Surgical and Obstetrics/Pediatrics), the following courses will be waived:

Medical/Surgical Nursing (Theory) – includes Foundations of Nursing
NURS 251: Nursing Related to Health Patterns; NURS 350, 371, 450: Nursing Care of the Adult I, II, III .....11 cr.

OB/Peds Nursing (Theory)
NURS 373: Nursing Care of the Childbearing Family .....3 cr.
NURS 452: Nursing Care of Children and Adolescents .....3 cr.

Clinical Skills Challenge exam
(On-campus lab testing in foundations of nursing, mathematics, and obstetric/pediatric and medical/surgical skills) .....13 cr.

TOTAL .....**30 cr.**

Note: If a passing score on the ACE II exams is not achieved, the student is required to enroll in the corresponding course(s). Students may repeat each exam one time.

B.S. IN LIBERAL STUDIES

The Liberal Studies major is a highly individualized program offered exclusively through Dexter Hanley College. Applicants who have attended other accredited colleges may transfer up to 60 credits for applicable courses in which a grade of "C" or better has been earned. Students who qualify for this interdisciplinary degree program are eligible to earn as many as 30 semester hours for academically relevant experience.

Notes

- All Liberal Studies students must take two courses designated as writing intensive (W) and two courses designated as cultural-diversity (D).
- In compliance with terms set by AACSB accreditation, no more than 30 credits of the concentration may be courses in the Kania School of Management.
- The only Physical Education courses which may be counted towards the Liberal Studies degree are those that are 3 or more credits.
- No minors are granted with the Liberal Studies program.
- No transcripted interdisciplinary programs are accepted as Liberal Studies concentrations.

Liberal Studies Curriculum

General Education	*Credits*
Natural Science	6
Quantitative Reasoning[1]	3
Social/Behavioral Sciences	6
Skills Acquisition	
WRTG 107	3
COMM 100	3
C/IL 102 and C/IL 102L	3
Humanities[2]	12
Philosophy & Theology/Religious Studies	
PHIL 120	3
PHIL 210	3
T/RS 121	3
T/RS 122	3
PHIL-T/RS ELECT	3
General Education Electives	12
	63
Concentrations	63

Student may complete three or four Concentrations, having no fewer than 15 credits and no more than 24 credits per Concentration.

TOTAL: 126 CREDITS

[1] *If placement testing indicates a need for MATH 005, it will be placed in the free elective areas.*

[2] *Credits must be earned in at least two areas with 6 credits from one area (HIST, LIT or LANG) and a maximum of three credits from the ARTS/MUSIC/THEATRE area.*

ASSOCIATE IN ARTS

The Associate in Arts is often classified as the Liberal Arts "transfer degree" in that it provides the student with a broad exposure to the arts and sciences.

Degree Requirements for Associate in Arts*

Each candidate for the degree must complete 60 semester hours of credit. Of these, 54 credits must be earned in the liberal arts, according to a prescribed plan covering the humanities, social/behavioral sciences, philosophy, theology/religious studies, and natural sciences/mathematics. The remaining 6 semester hours are allotted to free electives. Applicants who have attended other accredited colleges may transfer up to 30 credits for applicable courses in which a grade of C or better was earned.

Associate in Arts Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL–QUAN	C/IL 102–MATH ELECT	Computer and Info Literacy–Math Elective	6
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics–Theology II	6
GE S/BH	S/BH ELECT	Social/Behavioral Electives	6
GE NSCI	NSCI ELECT	Natural Science Electives	6
Major/Cognates			
HUMN ELECT	ELECT	Humanities Electives	24

TOTAL: 60 CREDITS

* *Liberal Arts includes humanities, social/behavioral sciences, philosophy, theology, and natural sciences/mathematics.*

ASSOCIATE IN SCIENCE: CAREER-RELATED FIELD

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors.

Associate in Science: Business Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE QUAN/ELECT	MATH 106–107	Quantitative Methods I–II	6
GE ELECT	ELECT	Free Elective	3
GE S/BH	ECO 153–154	Principles of Micro–Macro Economics	6
GE WRTG	WRTG 107	Composition	3
GE SPCH	COMM 100	Public Speaking	3
GE C/IL	C/IL 104 (+ lab)	Computer and Information Literacy	3
GE HUMN	HUMN ELECT[2]	Humanities Electives	9
GE PHIL-T/RS	PHIL 120	Introduction to Philosophy	3
GE PHIL-T/RS	T/RS 121	Theology I	3
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
Major/Cognates			
	MGT 161	Introduction to Business	3
	ACC 253–254	Financial–Managerial Accounting	6
	STAT 251–252	Statistics for Business I–II	6
	MGT 251	Legal Environment of Business	3
		TOTAL: 60 CREDITS	

[1] *Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.*

[2] *Must take two courses in history, literature, or foreign language. The other 3 credits will be in one of the other two areas, including Art and Music.*

Note: Students who complete the associate degree in business and wish to continue toward the B.S. in Accounting, Economics, Finance, Management, Marketing, or Operations Management must have attained a 2.0 in major and cognate courses and an overall G.P.A. of 2.0.

Associate in Science: Computer Engineering Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE HUMN	HUMN ELECT	Humanities Electives	6
GE S/BH	S/BH ELECT	Social/Behavioral Elective	9
Major /Cognates			
	PHYS 140–141	Elements of Physics I–II	8
	PHYS 270	Elements of Modern Physics	4
	MATH 103[1]–114	Pre-Calculus–Analysis I	8
	MATH 142	Discrete Structures	4
	MATH 221–222	Analysis II–III	8
	CMPS 134	Computer Science I	3
	CMPS 144	Computer Science II	4
	CMPS 240	Data Structures	3
	CMPS 250	Machine Org & Assembly Lang Programming	3
	ENGR 250	Statistics	3
	E/CE 240	Introduction to Digital Circuits	3
	E/CE 340	Digital Systems	3
	EE 241	Circuit Analysis	4
	EE 243L	Digital System Design Laboratory	2
		TOTAL: 90 CREDITS	

[1] *Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.*

Associate in Science: Computer Information Systems Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE QUAN	MATH 142[1]	Discrete Structures	4
GE S/BH	ECO 153	Principles of Microeconomics	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE HUMN	HUMN ELECT	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
GE ELECT	FREE ELECT[2]	Free Elective	6
Major /Cognates			
	CMPS 134, 144	Computer Science I, II	7
	MATH 204 or STAT 251	Special Topics of Statistics OR Stats for Business I	3
	CMPS 240	Data Structutes	3
	CMPS 250	Machine Org & Assembly Lang Programming	3
	CMPS 330	Information Systems	3
	CMPS 340	File Processing	4
		TOTAL: 63 CREDITS	

[1] *Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.*
[2] *ECO 154 is recommended.*

Associate in Science: Criminal Justice Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE NSCI	PHYS 107[1]	"Hands On" Physics	3
GE NSCI	ELECT	Natural Science Elective	3
GE S/BH	SOC 110	Introduction to Sociology	3
GE S/BH	PSYC 110	Fundamentals of Psychology	3
GE S/BH	PS 131[1] or SOC 112[1]	American Nat'l Gov't II OR Social Problems	3
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE HUMN	HUMN ELECT[2]	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
GE ELECT	FREE ELECT	Free Elective	3
Major/Cognates			
	CJ 110	Introduction to Criminal Justice	3
	S/CJ 210	Law and Society	3
	S/CJ 212	Criminological Research	3
	S/CJ 213	Criminology	3
	FREE ELECT	Free Electives	6
		TOTAL: 63 CREDITS	

[1] *Recommended courses.*
[2] *This could also be used for writing-intensive and/or cultural-diversity credit.*

Associate in Science: Electrical Engineering Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE HUMN	HUMN ELECT	Humanities Elective	3
GE S/BH	S/BH ELECT	Social/Behavioral Elective	3
Major/Cognates			
	PHYS 140–141	Elements of Physics I–II	8
	PHYS 270	Elements of Modern Physics	4
	MATH 103[1]–114	Pre-Calculus–Analysis I	8
	MATH 221–222	Analysis II–III	8
	CMPS 134	Computer Science I	3
	ENGR 250–252	Statics–Solid State Materials	6
	ENGR 253–254	Introduction to CAD–3D CAD	2
	EE 240	Introduction to Digital Circuits	3
	EE 241	Circuit Analysis	4
	EE 343	Electronic Circuits I	3
	EE 243L	Digital-System Design Lab	2
		TOTAL: 72 CREDITS	

[1] *Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.*

Associate in Science: Gerontology Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE NSCI	CHEM 100[1]	Elements of Chemistry	3
GE NSCI	NSCI ELECT	Natural Science Elective	3
GE S/BH	SOC 110	Introduction to Sociology	3
GE S/BH	PSYC 110	Fundamentals of Psychology	3
GE S/BH	PSYC 222[1] or SOC 112	Adulthood and Aging OR Social Problems	3
GE SPCH–WRTG	COMM100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE HUMN	HUMN ELECT[2]	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
GE ELECT	FREE ELECT	Free Elective	3
Major/Cognate			
	GERO 110	Introduction to Gerontology	3
	GERO 230	Social Policy and Aging	3
	GERO 232	Aging and Death	3
	SOC 211	Methods of Social Research	3
	GERO ELECT	Gerontology Electives	6
		TOTAL : 63 CREDITS	

[1] *Recommended courses.*

[2] *This could also be used for writing-intensive and/or cultural-diversity credit.*

Associate in Science: Health Administration Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE HUMN	HUMN ELECT	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210–T/RS 122	Ethics or Theology II	3
GE ELECT	FREE ELECT	Free Electives	6
Major/Cognate			
	HADM 111	Introduction to Health Administration	3
	HADM 112	Health Systems	3
	HADM 211	Health Administration	3
	HADM 312	Health Finance	3
	HADM 315	Cultural Diversity & Health Admin.	3
	ACC 253	Financial Accounting	3
	MGT 251	Legal Environment of Business	3
	ELECT	Cognate Electives	6
			TOTAL: 60 CREDITS

Dexter Hanley College students will meet the service-learning requirement by completing major courses that have a service-learning component. They will not be required to complete additional service-learning hours.

Note: Students who complete the associate degree in Health Administration and wish to continue toward the B.S. in Health Administration must have attained a 2.5 G.P.A. in the major.

Associate in Science: Human Resources Studies Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE HUMN	HUMN ELECT	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	T/RS 122 or PHIL 210	Theology II OR Ethics	3
GE ELECT	FREE ELECT	Free Electives	6
Major/Cognate			
MAJOR	HRS 111	Macro Human Resources	3
MAJOR	HRS 112	Micro Human Resources[1]	3
MAJOR	HRS 251	Performance Appraisal	3
MAJOR	HRS 252	Workforce Education & Training[1]	3
MAJOR	HRS 340	Compensation and Benefits	3
MAJOR	HRS 351	Recruitment, Selection & Staffing[1]	3
MAJOR	HRS ELECT	HRS Elective	3
COGNATE	MGT 351	Principles of Management I	3
COGNATE	ELECT	Cognate Elective[2]	3
			TOTAL: 60 CREDITS

[1] *Service-learning course.*

[2] *May be any course that satisfies the cognate requirement for the B.S. in Human Resources.*

Note: Students who complete the associate degree in Human Resources and wish to continue toward the B.S. in Human Resources must have attained a 2.5 G.P.A. in the major.

Associate in Science: Human Services Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE HUMN	HUMN ELECT	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
GE QUAN–NSCI	QUAN–NSCI ELECT	Quantitative–Natural Science Electives	6
GE ELECT	FREE ELECT	Free Electives	6
Major/Cognate			
	HS 111	Introduction to Human Adjustment	3
	HS 112	Human Services Systems	3
	HS 241	Case Management & Interviewing	3
	HS 242	Counseling Theories	3
	HS ELECT	HS Elective	3
	ELECT	Cognate Electives	6
		TOTAL: 60 CREDITS	

Dexter Hanley College students will meet the service-learning requirement by completing major courses that have a service-learning component. They will not be required to complete additional service-learning hours.

Note: Students who complete the associate degree in human services and wish to continue toward the B.S. in Human Services must have attained a 2.5 G.P.A. in the major and a 2.0 in the cognate courses.

Associate in Science: Political Science Curriculum

To earn the Associate of Science degree in Political Science the student must successfully complete 60 semester hours of credit. Of these, 48 credits must be earned in the liberal arts, according to a prescribed plan covering the humanities, philosophy, theology/religious studies, social/behavioral sciences, and natural sciences/mathematics. Twelve additional credits must be earned in the major field. The remaining 6 semester hours are allotted to free electives in either the area of specialization or any other field.

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE NSCI–QUAN	NSCI–QUAN ELECT	Natural Science–Math Electives	6
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
GE S/BH	S/BH ELECT	Social/Behavioral Electives	9
GE HUMN	HUMN ELECT	Humanities Electives	9
GE ELECT	ELECT	Free Electives	6
Major			
	PS 130–131	American National Government I–II	6
	PS ELECT	Political Science Electives	6
		TOTAL: 60 CREDITS	

Associate in Science: Sociology Curriculum

	Department and Number	*Descriptive Title of Course*	*Credits*
General Education			
GE NSCI	PHYS 107[1]	"Hands On" Physics	3
GE QUAN	QUAN ELECT	Mathematics Elective	3
GE S/BH	PSYC 110	Fundamentals of Psychology	3
GE S/BH	S/BH ELECT[2]	Social/Behavioral Electives	6
GE SPCH–WRTG	COMM 100–WRTG 107	Public Speaking–Composition	6
GE C/IL	C/IL 102	Computer and Information Literacy	3
GE HUMN	HUMN ELECT[3]	Humanities Electives	9
GE PHIL-T/RS	PHIL 120–T/RS 121	Introduction to Philosophy–Theology I	6
GE PHIL-T/RS	PHIL 210 or T/RS 122	Ethics OR Theology II	3
GE ELECT	FREE ELECT	Free Elective	3
Major/Cognate			
	SOC 110	Introduction to Sociology	3
	SOC 112	Social Problems	3
	SOC 211	Methods of Social Research	3
	SOC 231	Urban Sociology	3
	SOC 318	Sociological Theory	3
	SOC ELECT	Sociology Elective	3
		TOTAL: 63 CREDITS	

[1] *Recommended.*

[2] *GERO 110 or CJ 110 or PS 131 recommended.*

[3] *This could also be used for writing-intensive and/or cultural-diversity credit.*

CERTIFICATES FOR ACADEMIC CREDIT

A Certificate Program is an educational opportunity to gain professional knowledge or training in a specific field before or after pursuing a degree. Students enroll in the undergraduate certificate programs with a variety of educational backgrounds ranging from having completed no college work to having earned a degree.

The courses a certificate student takes are part of the regular curriculum of the University. Certificate programs are comprised of eight academic credit courses that are recorded permanently on the student's transcript. Some certificates also include guided learning experiences.

In order to earn a certificate, a student must maintain at least a C average in the certificate courses and must successfully complete any other requirements as stipulated for a specific certificate program. Generally, no more than 6 credits may be transferred into a certificate program.

Application to a certificate program is made through the Dexter Hanley College Admissions Office. After a student's application is approved, the student is accepted into the program and may then register. A student is responsible for conferring with an advisor before registering and as needed in the course of earning the certificate.

In certain certificate programs, the required courses may be waived on the basis of prior experience.

Certificates available include Advertising/Public Relations, Chemical Abuse Counseling, Computer Information Systems, Gerontology, Health Administration, Human Resources Studies. The Business/Management certificates are Level I: Business; Level II: Accounting, Personnel Management, and Pre-MBA.

Students enrolled in a 24-credit certificate program, taking at least 3 credits per semester, may be eligible for financial aid. The Financial Aid Office should be contacted for further details.

Certificate in Advertising/Public Relations (24 credits)*

A program designed for adults who are seeking entry-level or advancement opportunities in advertising, promotion and public relations. Students with life-experience in advertising, promotion or public relations may

* *Some daytime courses will be required.*

wish to take the more advanced courses. An advisor should be consulted before doing so.

Required Courses

COMM 120	Mass Communication
COMM 224	Newswriting (or COMM 324: Advanced Newswriting)
COMM 225	Advertising (or COMM 325: Advanced Copywriting)
COMM 226	Writing for Public Relations (or COMM 227: Public Relations)

Elective Courses (select four)

COMM 110	Interpersonal Communication
COMM 222	Television Production
COMM 227	Public Relations
COMM 311	Political Communication
COMM 312	Organizational Communication
COMM 314	Legal Communication and Research
COMM 316	Communication Ethics
COMM 323	TV Journalism
COMM 324	Advanced Newswriting Propaganda
COMM 325	Advertising Copywriting
COMM 326	Political Advertising
COMM 327	Public-Relations Cases
COMM 328	News Editing
COMM 329	Graphics
COMM 331	Mass-Media Management
COMM 334	Broadcast Programming
COMM 380	Advertising Practicum
COMM 410	Communication Theory
COMM 411	Persuasion and Propaganda
COMM 425	Cable Television
COMM 481	Internship
COMM 482	Directed Independent Study

Certificate in Chemical-Abuse Counseling (24 credits)

This is a program designed for individuals who hold a bachelor degree in human services or a related field, or are matriculating in a baccalaureate program in human services or a related field; and are interested in pursuing careers in substance abuse counseling.

Completion of course work alone is only *one* of several criteria for state certification. State certification requires a *minimum* of a baccalaureate degree, 1,500 hours of supervised clinical work experience in a drug and alcohol treatment facility or agency, and successful completion of a state-wide examination as specified for each level of certification.

Required Courses

HS 241	Case Management and Interviewing
HS 242	Counseling Theories
HS 421	Addictions
HS 422	Substance-Abuse Education
HS 423	Health and Legal Aspects of Substance Abuse

Elective Courses (select three)

HS 112	Human Service Systems
HS 323	Psychiatric Rehabilitation
HS 331	Health and Behavior
HS 334	Marital and Family Counseling
HS 341	Group Dynamics
HS 441	Crisis Intervention

Certificate in Computer Information Systems (24 credits)

This program is designed to introduce individuals to computers, and to expand the required math and programming skills needed for data analysis. The program targets:

1. Individuals presently in business who need to develop a greater familiarity with computer applications.
2. Individuals who are seeking to develop entry-level skills necessary for business computing.

Required Courses

MATH 142	Discrete Structures*
CMPS 134	Computer Science I
CMPS 144	Computer Science II
CMPS 330	Information-Systems Analysis
CMPS 340	File Processing

Elective Courses (select two)

CMPS 331	Systems Analysis and Design
CMPS 341	Database Systems
CMPS 240	Dara Structures

** Some prerequisite courses may be required, as determined by math-placement testing.*

Certificate in Gerontology (24 credits)*

Basic Certificate Program

A program designed to meet the needs of persons currently employed in the field of aging by providing course work designed to increase and refine knowledge and practitioner skills.

Required Courses

GERO 110 Intro to Gerontology
GERO 230 Social Policy and Aging
GERO 232 Aging and Death

Elective Courses (select five)

GERO 112 Social Problems of Aging
GERO 212 Aging and the Life Cycle
GERO 214 Aging and Human Behavior
GERO 216 Aging and the Community
GERO 218 Health and Aging†
GERO 220 Crime and Aging

Advanced Certificate Program

A program for persons with some previous college experience who are considering a career in the field of Geronrology.

Required Courses

GERO 110 Intro to Gerontology
GERO 218 Health and Aging

Elective Courses (select six)

GERO 112 Social Problems of Aging
GERO 210 Aging Around the World
GERO 212 Aging and The Life Cycle
GERO 214 Aging and Human Behavior
GERO 216 Aging and the Community
GERO 220 Crime and Aging
GERO 230 Social Policy and Aging
GERO 232 Aging and Death
GERO 382 Independent Study
GERO 480, 481 Practicum in Gerontology

Certificate in Health Administration (24 credits)

A program for adults who seek to develop administrative skills in the field of health administration. Students who complete the Certificate in Health Administration and wish to continue toward the associate or B.S. degree in Health Administration must have attained a 2.5 G.P.A.

Required Courses

HADM 111 Introduction to Health Administration
HADM 112 Health Systems
HADM 211 Health Administration
HADM 213 Supervising Health Personnel
HADM 312 Health Finance
HADM Electives (9 credits)

Certificate in Human Resources Studies (24 credits)

A program for adults who seek to develop administrative skills in the field of human resources. Students who complete the Certificate in Human Resources and wish to continue toward the associate or B.S. degree in Human Resources must have attained a 2.5 G.P.A.

Required Courses

HRS 111 Macro Human Resources
HRS 112 Micro Human Resources+
HRS 251 Performance Appraisal+
HRS 252 Workforce Education and Training+
HRS 340 Compensation and Benefits
HRS 351 Recruitment, Selection and Staffing+
MGT 351 Principles of Management I
HRS Elective

Certificate Programs in Business/Management (24 or 36 credits)

Level I: Business

The Level I Certificate Program in Business will comprise 24 credits, with no more than 6 credits allowed by way of transfer from another college. The Level I program is open to any qualified students (i.e., those who meet the DHC entrance requirements).

Courses

ACC 253, 254 Financial Accounting, Managerial Accounting
C/IL 104 Computing and Information Literacy
ECO 153, 154 Principles of Microeconomics, Macroeconomics
MGT 161 Introduction to Business
MGT 251 Legal Environment of Business
Free Elective (Advisor Approved)

** Some daytime courses may be required.*
† Recommended.
+ Service-learning course.

Level II

Level II certificate programs will comprise 24 credits, with no more than 6 credits allowed by way of transfer from another approved college. Level II programs are open only to students who have achieved junior status, and have completed the appropriate Level I program, or to post-baccalaureate self-improvement students. In the latter case, students may be required to take prerequisite courses for any required courses in the certificate program.

The Level II certificate in Accounting, plus an earned baccalaureate degree, provides the student with adequate course work to meet Pennsylvania's requirement to sit for the C.P.A. examination. However, both New York and New Jersey require additional credits in Finance (6 credits) and Business Law (6 credits) to sit for the exam. (For one of the additional courses in Finance, one of FIN 361, 362 or 475 is recommended. One of these courses could be taken as the Free Elective in Level I.) Students should consult an advisor in The Kania School of Management to ensure that they take the correct courses to satisfy the requirements of states other than Pennsylvania.

Accounting (24 Credits)

ACC 251, 252	Financial Accounting I, II
ACC 363, 364	Federal Taxes, Auditing Theory
ACC 361, 362	Intermediate Accounting I, II
ACC 461, 470	Cost Accounting, Law for Accountants

Personnel Management (24 Credits)

MGT 351	Principles of Management I
MGT 362	Employee-Management Relations
MGT 352	Principles of Management II
MGT 460	Organization Theory
MGT 361	Human Resource Management
MGT 471	Group Dynamics

Free electives: 6 credits, approved by advisor.

Pre-MBA (36 Credits)

Students should have basic computer knowledge before beginning this program.

ACC 253	Financial Accounting
ACC 254	Managerial Accounting
ECO 153	Principles of Microeconomics
ECO 154	Principles of Macroeconomics
FIN 351	Introduction to Finance
MATH 106	Quantitative Methods I
MATH 107	Quantitative Methods II
MGT 251	Legal Environment of Business
MGT 351	Principles of Management I
MKT 351	Intro. to Marketing
OIM 351	Introduction to Management
STAT 251	Statistics for Business I

The Graduate School

The Graduate School offers advanced study in a variety of professional fields as well as in the humanities and sciences. Its students are drawn from throughout Northeastern Pennsylvania, several surrounding states and from over 20 foreign countries. The students are pursuing master's degrees, various types of certification and personal enrichment.

The Graduate School

For more than a half century, The University of Scranton has provided advanced, post-baccalaureate education.

Master's Degree Programs

The University offers master's degrees in the 22 programs listed below. Programs for supervision, superintendent's letter of eligibility, and teacher's certification are also available.

Biochemistry
Business Administration (M.B.A.)
Chemistry
Clinical Chemistry
Curriculum and Instruction
Community Counseling
Early Childhood Education
Educational Administration
Elementary Education
English*
Health Administration (M.H.A.)
History
Human Resources Administration
Nursing
Occupational Therapy
Physical Therapy (M.P.T.)
Reading Education
Rehabilitation Counseling
School Counseling
Secondary Education
Special Education
Software Engineering
Theology

Combined Baccalaureate/Master's Degree Program

Undergraduate students often plan to pursue graduate study either in their undergraduate specialty or in another field of endeavor.

For the University's undergraduate student whose major field of study is in Accounting, Biochemistry, Chemistry, Computing Sciences, Health Administration/Human Resources, History, Human Services, or Nursing; who excels within his/her major field of study early in an undergraduate career; and who is positioned to and also desires to pursue advanced study in that field of endeavor, that student may have the opportunity to be admitted to a graduate program prior to obtaining a baccalaureate degree. This allows that student opportunity to pursue graduate course work in his/her major field while completing the other undergraduate requirements for graduation.

The undergraduate student who excels, in general, and desires to pursue graduate work in a field of endeavor other than his/her undergraduate major (often in a professional graduate program), may have the opportunity to be admitted to that graduate program prior to obtaining a baccalaureate degree in order to undertake graduate-course work at an appropriate time in his/her development (often prior to completing the requirements for the baccalaureate degree).

Departments housing undergraduate programs may allow some graduate course work to satisfy undergraduate degree requirements (not to exceed 12 credit hours). In participating undergraduate programs, the student's undergraduate program advisor will recommend the undergraduate-course work for which graduate credits may be substituted.

The selection of the graduate course work, the particular credits to be applied toward an undergraduate degree, and a prospectus of study require the approval of the student's undergraduate program advisor, the chair of the department housing the student's undergraduate degree program, the graduate program director in the student's academic discipline, the appropriate undergraduate-program dean, and the dean of The Graduate School.

The Combined Baccalaureate/Master's Degree student will be expected to complete his/her baccalaureate degree no later than the semester in which he/she completes the master's degree. Often, the student entering the Combined Baccalaureate/Master's Degree Program will complete both programs during a five-year time period.

For further information concerning possible participation in the Combined Baccalaureate/Master's Degree Program, please refer to the *Graduate School Catalog* of The University of Scranton or contact the Graduate School at (570) 941-7600. You may also contact the following offices directly:

Accounting
Dr. Michael O. Mensah (570) 941-7569

Chemistry, Biochemistry
Dr. Christopher Baumann (570) 941-6389
Dr. David Marx (570) 941-7511

** Applications are no longer being accepted for this program.*

Computing Sciences
Dr. Yaodong Bi (570) 941-6108
Prof. Richard Plishka (570) 941-6111

Counseling and Health Services
Dr. Oliver J. Morgan (570) 941-6171
Dr. Ann Marie Toloczko (570) 941-6172

Elementary or Special Education
Dr. Deborah E. Lo (570) 941-7579
Dr. Timothy J. Hobbs (570) 941-6244

Health Administration/Human Resources
Dr. Peter C. Olden (570) 941-4350

History
Dr. Raymond Champagne (570) 941-7428
Dr. Michael DeMichele (570) 941-7443

Nursing
Dr. Mary Jane Hanson (570) 941-4060
Dr. Patricia Harrington (570) 941-7673

Graduate Assistantships

Approximately 60 graduate assistantships are available each year. Students awarded assistantships receive stipends and are entitled to tuition scholarships.

Applicants for graduate assistantships must have an Application for Admission form on file in the Graduate School Office. Applications for graduate assistantships must be submitted by March 1. Awards are made on the basis of the student's academic record, experience and promise as a graduate student. International students are not eligible for graduate assistantships in their first semester.

Graduate students can also apply for Guaranteed Student Loans (GSL) and Federal Work-Study.

Scheduling

Most classes are offered from 4:30 to 7:10 p.m. and 7:20 to10:00 p.m., Monday through Thursday, in the fall and spring terms. Almost all courses meet one night per week. Summer and intersession classes are also available.

Admissions Requirements

Applicants for admission should submit a completed application form, $50 application fee, three letters of reference and official copies of their transcripts. In addition to these requirements, which apply to all programs, individual programs may have special requirements such as test scores, personal interviews or writing samples. Consult the *Graduate School Catalog* for these special requirements.

International students whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL). Scores required on this test for admission vary by program. Consult the *Graduate School Catalog* for minimum scores applicable to each program.

All application documents should be on hand in the Graduate School Office at least one month before the intended starting term. Consult the *Graduate School Catalog* for more stringent deadlines for the Counseling, Health Administration and Nursing programs. International students should have their credentials in the Graduate School Office at least three months before the term in which they would like to begin their studies. Students may begin their studies in fall, spring, or summer. Software Engineering, Counseling, and Health Administration students may begin their studies only in the fall semester.

For Additional Information

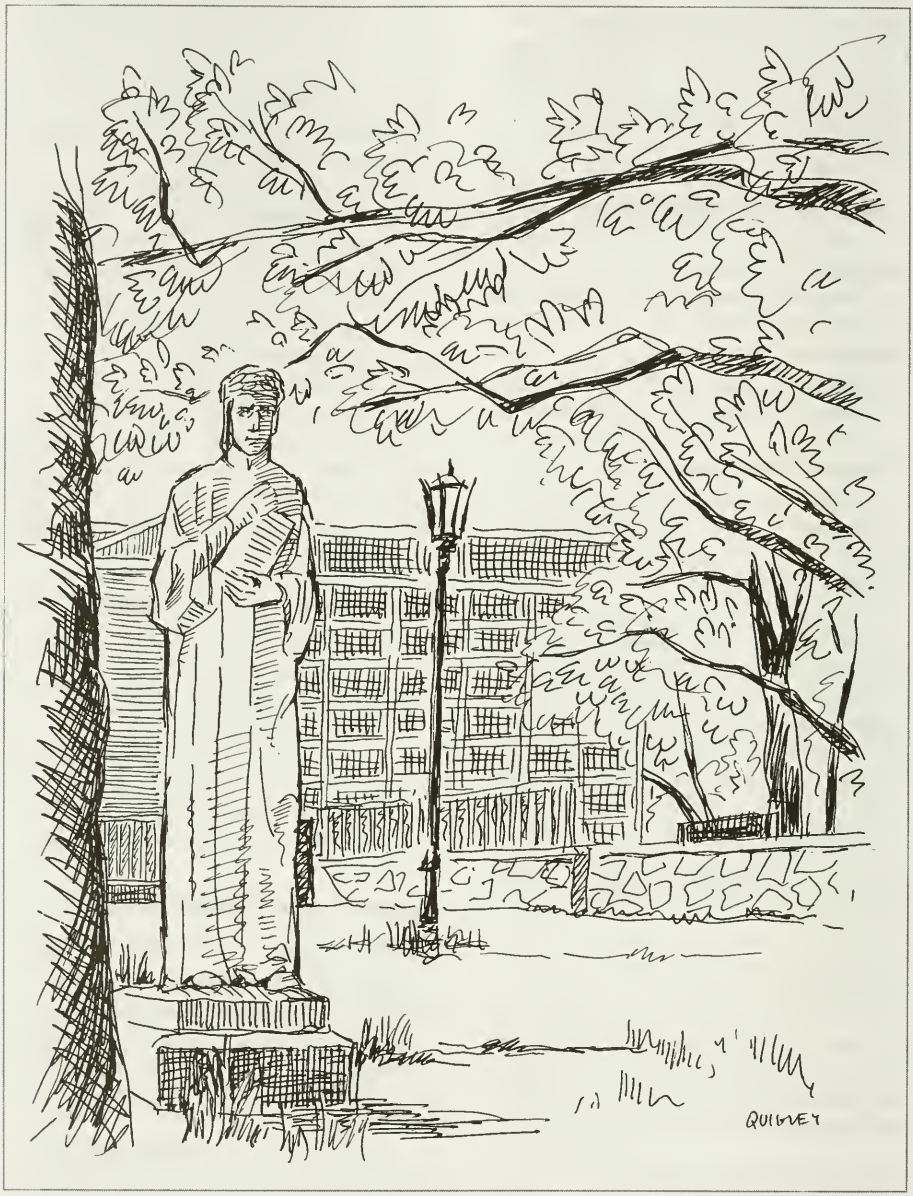
The Graduate School
The University of Scranton
Scranton, Pennsylvania 18510-4631
Telephone: (570) 941-7600 or
1-800-366-4723 (within U.S.A.)
Fax: (570) 941-5995
E-mail: graduateschool@scranton.edu
Web: www.scranton.edu/graduateschool

Center for Continuing Education

The Center for Continuing Education (CCE), a component of the Graduate School, offers a wide range of programs for the adult learner interested in taking non-credit courses for professional certification or personal enrichment.

The Center for Continuing Education also offers seminars designed for individuals, business and industry. Classes are generally given on campus, but special arrangements can be made to offer selected courses on site. Customized programs can also be developed to meet the needs of individual companies.

Additional information is available by phone at (570) 941-7582 or online at www.scranton.edu/cce.



Statue of Dante in front of Alumni Memorial Hall

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Ph.D., The City University of New York

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President Emeritus (1998)
B.S., Loyola College
Ph.L., St. Louis University
Ph.D., St. Louis University
S.T.L., Woodstock College

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Secretary of the University (1999)
General Counsel (1995)
B.A., Carleton College
J.D., University of Denver

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Executive Director, Office of Urban and Government Affairs (1997)
B.A., M.A., St. Louis University
Ph.D. Cand., The University of Michigan

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Director of the Office of Equity and Diversity
B.A., M.B.A., Dowling College

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B.S., Slippery Rock University of Pennsylvania
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Associate Provost for Information Resources (1996)
B.S., M.B.A., The University of Scranton

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Dean, College of Arts and Sciences (1997)
B.A., LaSalle University
M.S., Ph.D., Lehigh University

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University Director of Fellowship Programs (2000)
B.A., St. Bonaventure University
L.L., Katholieke Universiteit te Leuven
Ph.D., Kent State University

Ronald D. Johnson (1997)
Dean, Arthur J. Kania School of Management (1997)
Professor, Management/Marketing (1997)
B.S., M.B.A., D.B.A., Indiana University

Darla Rae Germeroth (1989)
Associate Dean, College of Arts and Sciences (2002)
B.A., M.A., Kansas State University
Ph.D., University of Denver

Ralph W. Grambo, Jr., D. et U.* (1973)
Associate Dean, Kania School of Management (2000)
B.S., The University of Scranton
M.B.A., Ph.D., University of Pennsylvania

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Dean of the Library (2002)
B.A., M.A., University of Notre Dame
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Professor, Health Administration and Human Resources (1991)
B.A., La Salle University
M.S., Temple University
M.A., Glassboro State College
Ed.D., Rutgers University

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A.B., Davis and Elkins College
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Ph.D., The University of Michigan

Jem Spectar (2002)
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B.A., University of La Verne
M.B.A., Frostburg State University
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M.A.P., Claremont Graduate School
J.D., University of Maryland Law School
Ph.D., Claremont Graduate School

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B.A., College Misericordia

Rhonda A. Waskiewicz, M.S., OTR/L (1998)
Associate Dean, Panuska College of Professional Studies (2002)
B.S., Tufts University, Boston School of Occupational Therapy
M.S., King's College
Ed.D., Temple University

Dean, Dexter Hanley College (TBA)

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B.A., Fordham University
M.Ed., Boston College
M.Div., Woodstock Jesuit College
Ph.D., Catholic University of America

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Director of Human Resources (1996)
B.S., The Pennsylvania State University
M.S., The University of Scranton

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Vice President for Planning and Institutional Effectiveness

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Ph.D., Southern Illinois University at Carbondale

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S.T.B., Woodstock College

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Department of Economics/Finance

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Counselor Emeritus/SOM Advising Center
Assistant Professor, Psychology

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Director of Personnel Emeritus

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Zim E. Lawhon, M.S., D. et U.* (1964-89)
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Department of Management/Marketing

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Department of Nursing

John J. Baldi, M.S.S.W., D.S.S., D. et U.* (1948-81)
Department of Sociology

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

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Raymond L. Kimble, Ed.D., D. et U.* (1973-93)
Department of Education
M. Jane Kopas, O.S.F., Ph.D., D. et U.* (1978-2001)
Department of Theology/Religious Studies
Frank J. MacEntee, S.J., D. et U.* (1965-2002)
Department of Biology
Dennis S. Martin, Ed.D. (1985-2002)
Department of Computing Sciences
Marianne McTighe, M.S., D. et U.* (1946-86)
Library
John J. Murray, Ph.D., D. et U.* (1957-88)
Department of English
Mildred A. Norton, M.S., D. et U.* (1946-88)
Library
John J. Quinn, S.J., Ph. D., D. et U.* (1956-92)
Department of English
Richard W. Rousseau, S.J., Ph.D., D. et U.* (1978-2001)
Department of Theology/Religious Studies
Angelina T. Scardamaglia, M.S., D. et U.* (1947-78)
Library
Larry R. Sherman, Ph.D., D. et U.* (1981-99)
Department of Chemistry
Cheng Hwa Siao, M.A., M.S.L.S., D. et U.* (1969-93)
Library
Ronald Sinzdak, D. et U.* (1962-65; 1970-2002)
Department of Mathematics
John K. Stout, Ed.D., D. et U.* (1966-97)
Department of Health Administration/Human Resources
Bernard D. Williams, M.A., D. et U.* (1962-97)
Department of History/Political Science
John C. Williams, M.S., D. et U.* (1964-90)
Department of Education
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Department of Management/Marketing

Faculty of Instruction

Brad A. Alford (1999)
Professor, Psychology (1993)
B.A., Millsaps College
M.A., Ph.D., University of Mississippi
William B. Anderson, Jr. (2003)
Assistant Professor, Communication (2003)
B.A., Augusta College
M.A., Ph.D., University of Georgia
Scott C. Bader-Saye (1997)
Associate Professor, Theology/Religious Studies (2003)
B.A, Davidson College
M.Div., Yale Divinity School
Ph.D., Duke University
Harold W. Baillie, D. et U.* (1978)
Professor, Philosophy (1993)
A.B., Yale University
M.A., Ph.D., Boston College
Thomas E. Baker, D. et U.* (1975)
Associate Professor, Sociology/Criminal Justice (2000)
B.S., M.S., Virginia Commonwealth University
M.Ed., M.S., East Stroudsburg University
Galen L. Baril, D. et U.* (1975)
Associate Professor, Psychology (1985)
B.A., University of Nevada
Ph.D., University of Maine
Dona C. Bauman (2003)
Assistant Professor, Education (2003)
B.S., Shippensburg University
M.Ed., Kutztown University
Ph.D., Temple University
Christopher A. Baumann (1984)
Professor, Chemistry (1998)
B.S., Oregon State University
Ph.D., University of Florida
Rebecca S. Beal, D. et U.* (1983)
Professor, English (1995)
A.B., Westmont College
M.A., University of Chicago
Ph.D., University of Texas
John Begley, S.J., D. et U.* (1975-79, 1985)
Associate Professor, Theology/Religious Studies (1985)
A.B., M.A., Boston College
Ph.L., S.T.L., Weston College
S.T.D., Gregorian University
John A. Beidler, C.D.P., D. et U.* (1964)
Professor, Computing Sciences (1976)
A.B., King's College
M.A., Lehigh University
Ph.D., The Pennsylvania State University
Paul R. Beining, S.J., D. et U.* (1949-1951, 1967)
Professor, Biology (1974)
B.S., Ph.L., Spring Hill College
S.T.L., Woodstock College
M.S., Ph.D., The Catholic University of America

J. Brian Benestad, D. et U.* (1976)
Professor, Theology/Religious Studies (1989)
A.B., Assumption College
S.T.L., Gregorian University
Ph.D., Boston College

W. Andrew Berger (1989)
Professor, Physics/Electrical Engineering (2001)
M.S., Technical University of Poznan, Poland
M.S., Ph.D., Drexel University

Robert M. Bessoir, D. et U.* (1968)
Professor, Exercise Science and Sport (1994)
B.S., The University of Scranton
M.S., East Stroudsburg University

Yaodong Bi (1991)
Associate Professor, Computing Sciences (1997)
B.S., M.S., Northeast University of Technology
Shenyang, People's Republic of China
Ph.D., University of Illinois

Gerald Biberman, D. et U.* (1981)
Chair, Management/Marketing (1992)
Professor, Management/Marketing (2001)
B.A., M.A., Ph.D., Temple University

David W. Black (1984)
Professor, Philosophy (1994)
B.A., Northern Illinois University
M.A., Ph.D., The Pennsylvania State University

Karen L. Brady (2002)
Instructor, Occupational Therapy (2003)
B.A. Mansfield University
M.S., College Misericordia

Lori A. Bruch (1995)
Associate Professor, Counseling and Human Services (2002)
B.S., M.Ed., The Pennsylvania State University
M.S., The University of Wisconsin-Stout
Ed.D. George Washington University

Alan L. Brumagim (1990)
Associate Professor, Management/Marketing (1996)
B.B.A., The Pennsylvania State University
M.B.A., Ph.D., Temple University

James P. Buchanan, D. et U.* (1977)
Chair, Department of Psychology (1993)
Associate Professor, Psychology (1981)
B.A., The Johns Hopkins University
M.A., Ph.D., University of California, Los Angeles

Timothy J. Cadigan, S.J. (1999)
Assistant Professor, Biology (1999)
B.S., St. Louis University
M.Div., Th.M. Weston School of Theology
M.S., Ph.D., Georgetown University

Cynthia W. Cann (1994)
Associate Professor, Management/Marketing (2002)
B.S., M.B.A., The University of Scranton
Ph.D., Binghamton University

Michael C. Cann, D. et U.* (1975)
Professor, Chemistry (1988)
B.A., Marist College
M.A., Ph.D., State University of New York at Stony Brook

Joseph M. Cannon, D. et U.* (1959)
Professor, Education (1997)
B.S., The University of Scranton
M.Ed., Doctoral Studies, The Pennsylvania State University
Licensed Psychologist

J. Timothy Cannon, D. et U.* (1981)
Professor, Psychology (1997)
B.S., The University of Scranton
Ph.D., University of Maine

Michael D. Carey D. et U.* (1978)
Professor, Biology (1990)
B.A., Wittenberg University
M.A., Ph.D., Indiana University

Brian W. Carpenter, C.M.A. (1987)
Professor, Accounting (1998)
Alperin Teaching Fellow (1999)
M.B.A., The University of Scranton
B.S., Ph.D., The Pennsylvania State University

Dona M. Carpenter, R.N. (1985)
Professor, Nursing (1999)
B.S.N., College Misericordia
M.S.N., Villanova University
M.Ed., Ed.D., Columbia University

Maureen T. Carroll (1995)
Associate Professor, Mathematics (2001)
B.A. LaSalle University
M.S., Ph.D. Lehigh University

Ellen Miller Casey, D. et U.* (1969)
Professor, English (1981)
B.S., Loyola University, Chicago;
M.A., University of Iowa
Ph.D., University of Wisconsin

Stephen J. Casey, D. et U.* (1969)
Associate Professor, Theology/Religious Studies (1981)
A.B., Iona College
M.A., Marquette University

Timothy K. Casey (1987)
Professor, Philosophy (1996)
B.A., Loras College
M.A., University of Pittsburgh
M.A., Ph.D., Duquesne University

Raymond W. Champagne, Jr., D. et U.* (1967)
Professor, History (1981)
A.B., Providence College
M.S., Duke University
Ph.D., Loyola University, Chicago

Leonard Champney, D. et U.* (1979)
Chair, Political Science (1998)
Professor, Political Science (1992)
B.S., University of Texas, El Paso
Ph.D., Rutgers University

Satya P. Chattopadhyay (1990)
Associate Professor, Management/Marketing (1997)
B.M.E., Jadaupur University;
P.G.D.M., Indian Institute of Management, Calcutta
Ph.D., Virginia Polytechnic Institute and State University

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

Ying I. Chien, D. et U.* (1979)
Associate Professor, Operations and Information Management (1979)
B.S., National Taiwan University
M.S., University of Manitoba
Ph.D., University of Kentucky

Jafor Chowdhury (1987)
Associate Professor, Management/Marketing (1993)
B. Comm., M. Comm., Dacca University
M.B.A., Dalhousie University
Ph.D., Temple University

Elizabeth Ciaravino (2001)
Chair, Department of Occupational Therapy (2002)
Assistant Professor, Occupational Therapy (2001)
B.A., State University of New York at Buffalo
M.S., Boston University
Ph.D., Institute of Advanced Psychological Studies, New York

Joseph F. Cimini, D. et U.* (1980)
Chair, Department of Sociology/Criminal Justice (2001)
Associate Professor, Sociology/Criminal Justice (1994)
B.A., The University of Scranton
J.D., Columbus School of Law, The Catholic University of America

Thomas M. Collins (1989)
Associate Professor, Counseling and Human Services (1998)
B.S., Kutztown University
M.L.S., Rutgers University
Ed. M., Temple University
Ph.D., State University of New York at Albany
Licensed Psychologist
National Certified Counselor

Tracey L. Collins (2002)
Instructor, Physical Therapy (2003)
B.S., The University of Scranton
M.B.A., UNC-Wilmington

Joseph W. Connolly, D. et U.* (1983)
Professor, Physics/Electrical Engineering (1992)
B.S., The University of Scranton
M.S., University of Illinois
Ph.D., The Pennsylvania State University

Willis M. Conover, D. et U.* (1978)
Professor, History (1993)
B.A., B.S., The Pennsylvania State University
M.S., Ed.D., Montana State University

John R. Conway (1985)
Associate Professor, Biology (1985)
B.S., The Ohio State University
M.A., Ph.D., University of Colorado

Frank P. Corcione, D. et U.* (1978-1979, 1982)
Associate Professor, Economics/Finance (1982)
B.A., Moravian College
M.A., Ph.D., Lehigh University

Rita P. Fleming Cottrell (2002)
Instructor, Occupational Therapy (2003)
B.S., M.A., New York University

Barbara Cozza (1997)
Associate Professor, Education (2002)
B.F.A., M.S., Hunter College
Ph.D., Fordham University

Wayne H.J. Cunningham (1987)
Associate Professor, Operations and Information Management (1987)
B.S, M.B.A., Ph.D., The Pennsylvania State University

Harry R. Dammer (2002)
Associate Professor, Sociology/Criminal Justice (2002)
B.S., M.S., University of Dayton
Ph.D., Rutgers University School of Criminal Justice

John C. Deak (2002)
Assistant Professor, Chemistry (2002)
B.S., University of Buffalo
Ph.D., University of Rochester

Ronald W. Deitrick (1998)
Associate Professor, Exercise Science and Sport (1998)
A.B., Villanova University
M.S., University of Utah
Ph.D., University of Maryland

Anthony A. DeCarli (2001)
Assistant Professor, Education (2003)
B.S., M.S., University of Scranton
Ed.D., Nova University

Michael D. DeMichele, D. et U.* (1967)
Chair, Department of History (1998)
Professor, History (1974)
B.S., The University of Scranton
M.A., Ph.D., The Pennsylvania State University

Vito DelVecchio, D. et U.* (1969)
Professor, Biology (1977)
B.A., The University of Scranton
M.S., St. John's University
Ph.D., Hahnemann Medical College Graduate School

Jones DeRitter (1990)
Chair, Department of English (1999)
Professor, English (2002)
A.B., Oberlin College
M.A., Ph.D., University of Virginia

Linda H. Desmond, R.N. (1987)
Assistant Professor, Nursing (1990)
R.N., Beebe Hospital School of Nursing
B.S.N., Cedar Crest College
M.S.A.N., University of Delaware
Ed.D., Columbia University

Trudy A. Dickneider (1984)
Professor, Chemistry (1997)
B.A., M.A., St. Joseph's College
Ph.D., University of Miami

Mary Jane K. DiMattio (1993)
Assistant Professor, Nursing (1999)
B.S., The University of Scranton
M.S.N., Villanova University
Ph.D., University of Pennsylvania

Anthony J. DiStefano, D. et U.* (1968)
Associate Professor, Physics/Electrical Engineering (1977)
B.E.E., Brooklyn Polytechnic Institute
M.A., Columbia University
Ph.D., Stevens Institute of Technology

Curt Dixon (2001)
Assistant Professor, Exercise Science and Sport (2001)
B.S., Lock Haven University
M.S., Bloomsburg University
Ph.D., University of Pittsburgh

Roy Palmer Domenico (1997)
Associate Professor, History (1999)
B.A., University of Wisconsin
M.A., University of Connecticut
Ph.D., Rutgers University

Steven T. Dougherty (1992)
Professor, Mathematics (2003)
B.S., The University of Scranton
M.S., Ph.D., Lehigh University

Katie S. Duke (1985)
Associate Librarian (1990)
B.A., California Baptist College
M.L.S., University of Oklahoma
M.S., The University of Scranton

Josephine M. Dunn (1988)
Associate Professor, History (1998)
B.A., B.F.A. University of Houston
M.A., Ph.D., University of Pennsylvania

John J. Dunstone, D. et U.* (1966)
Professor, Psychology (1974)
B.S., The Pennsylvania State University
M.S., Ph.D., University of Massachusetts

Michael Dutko (1985-1989; 1991)
Associate Professor, Mathematics (1993)
B.S., The Pennsylvania State University
A.M., The University of Michigan
Ph.D., The Pennsylvania State University

Kathleen G. Dwyer (1988)
Associate Professor, Biology (1993)
B.S., East Stroudsburg University
M.A., Ph.D., Princeton University

Gary E. Eichelsdorfer, D. et U.* (1965)
Associate Professor, Mathematics (1979)
A.B., Gannon College
M.A., University of Detroit

Laura Helene Ellis, C.P.A. (1994)
Associate Professor, Accounting (2001)
B.A., Carroll College
M.Acc., University of Montana
Ph.D., University of Oregon

Lee Ann M. Eschbach (1986)
Associate Professor, Counseling and Human Services (1995)
B.S., M.S., Ph.D., Washington State University

Paul Fahey, D. et U.* (1968)
Professor, Physics/Electrical Engineering (1978)
B.S., The University of Scranton
M.S., Ph.D., University of Virginia

Matthew J. Fairbanks, D. et U.* (1960)
Professor, Philosophy (1970)
B.S., M.A., Loyola University, Chicago
Ph.D., University of Notre Dame

Marian L. Farrell, R.N. (1990)
Professor, Nursing (2002)
B.S.N., M.S.N., College Misericordia
M.S., Syracuse University
Ph.D., Adelphia University

Anthony P. Ferzola (1990)
Associate Professor, Mathematics (1990)
B.A., Queens College
M.A., Ph.D., New York University

Mary Anne Foley, C.N.D. (1991)
Associate Professor, Theology and Religious Studies (1997)
B.A., Sacred Heart University
M.T.S., Weston School of Theology
M.Phil., Ph.D., Yale University

Timothy Daniel Foley (1999)
Assistant Professor, Chemistry (1999)
B.S., Providence College
Ph.D., University of Rhode Island

Daniel V. Fraustino, D. et U.* (1982)
Professor, English (1991)
B.A., State University of New York at Buffalo
M.A., San Diego State University
Ph.D., Binghamton University

Brigid Curtin Frein (1988)
Associate Professor, Theology and Religious Studies (1997)
B.A., Gonzaga University
Ph.D., St. Louis University

Michael Friedman (1991)
Professor, English (2001)
B.A., Tulane University
M.A., Ph.D., Boston University

David O. Friedrichs, D. et U.* (1977)
Professor, Sociology/Criminal Justice (1991)
A.B., University College of New York
M.A., New York University

Joseph A. Fusaro, D. et U.* (1974)
Professor, Education (1983)
B.A., Rider College
M.Ed., University of Vermont
Ed.D., State University of New York at Albany

Rosellen M. Garrert, CRNP, D. et U.* (1980)
Associate Professor, Nursing (1980)
B.S.N., College Misericordia
M.S., University of Maryland
F.N.P., Binghamton University
Ph.D., Medical College of Pennsylvania

Thomas W. Gerrity, D. et U.* (1976)
Associate Professor, Education (1986)
B.S., University of Pennsylvania
M.S., The University of Scranton
Ed.D., Columbia University

Satyajit P. Ghosh (1986)
Chair, Department of Economics/Finance (1993)
Professor, Economics/Finance (1999)
B.A., Presidency College, India
M.A., University of Calcutta
M.A., Ph.D., State University of New York at Buffalo

Antoinette G. Glover (2001)
Assistant Professor, English (2002)
B.A., M.A., University of Texas at Arlington
Ph.D., University of Texas at Dallas

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

S. Kingsley Gnanendran (1989)
Associate Professor, Operations and Information Management (1995)
B.Sc., University of Sri Lanka
M.Eng., Asian Institute of Technology
Ph.D., University of Tennessee

Irene Goll (1988)
Associate Professor, Management/Marketing (1994)
B.S., The Pennsylvania State University
M.A., University of Illinois
Ph.D., Temple University

George R. Gomez (2002)
Assistant Professor, Biology (2002)
B.S. University of the Philippines
Ph.D., Boston University

Deborah J. Gougeon, D. et U.* (1979)
Associate Professor, Operations and Information Management (1988)
B.S., M.S., The University of Scranton
Ph.D., Walden University

Leonard G. Gougeon, D. et U.* (1974)
Professor, English (1982)
B.A., St. Mary's University, Halifax
M.A., Ph.D., University of Massachusetts

Ronald J. Grambo, C.P.A., D. et U.* (1976-77; 1980)
Associate Professor. Accounting (1985)
B.S., M.S., M.B.A., The University of Scranton
Ph.D., The Pennsylvania State University

Marybeth Grant-Beuttler, M.S., P.T. (1998)
Assistant Professor, Physical Therapy (2001)
B.S., Northwestern University Medical School
M.S., University of North Carolina at Chapel Hill

Patricia A. Gross (2003)
Associate Professor, Education (2003)
B.A., Marymount College
M.A.T., Fordham University
Ed.D., Teachers College Columbia University

Christina M. Gschwandtner (2003)
Assistant Professor, Philosophy (2003)
B.A., Eastern Nazarene College
M.A., University of Manchester, Manchester, England
M.A., Boston College
Ph.D., DePaul University

David Hair (1986)
Assistant Professor, Exercise Science and Sport (1991)
B.S., M.Ed., East Stroudsburg University
M.S., The University of Scranton

Renee M. Hakim (1996)
Assistant Professor, Physical Therapy (1996)
B.S., The University of Scranton
M.S., University of Pittsburgh
Ph.D., Temple University

David W. Hall (1985)
Associate Professor, Counseling and Human Resources (1991)
A.B., Lycoming College
M.S., The University of Scranton
Ph.D., The Pennsylvania State University
Licensed Psychologist
Certified Rehabilitation Counselor

Joyce G. Hanks (1989)
Professor, Foreign Languages and Literatures (1995)
M.A., University of Wisconsin
B.A., Ph.D., Washington University

Mary Jane S. Hanson (1996)
Associate Professor, Nursing (2000)
B.S.N., Cedar Crest College;
M.S.N., Ph.D., University of Pennsylvania

Michael A. Hardisky (1984)
Chair, Department of Biology (1999)
Professor, Biology (1995)
B.S., Lebanon Valley College
M.S., Ph.D., University of Delaware

Patricia Harrington, R.N. (1984)
Chair, Department of Nursing (1994)
Associate Professor, Nursing (2000)
B.S., Medgar Evers College
M.S., Hunter-Bellevue School of Nursing
M.Ed., Ed.D., Columbia University

Jean Wahl Harris (1987)
Associate Professor, Political Science (1993)
B.A., M.A., Ph.D., Binghamton University

John M. Hill, D. et U.* (1981)
Professor, English (2000)
B.A., Central College
M.A., University of Illinois
M.F.A., University of Iowa
Ph.D. cand., University of Illinois

Timothy J. Hobbs (1997)
Associate Professor, Education (2002)
B.A., M.A., Sonoma State University
Ph.D., Florida State University

Gregory A. Hoch (2001)
Lieutenant Colonel, U.S. Army
Professor, Military Science (2001)
B.A., Troy State University

Thomas P. Hogan (1985)
Professor, Psychology (1985)
B.A., John Carroll University
M.A., Ph.D., Fordham University

Frank X. J. Homer, D. et U.* (1968)
Professor, History (1984)
A.B., The University of Scranton
M.A., Ph.D., University of Virginia

John S. Hopkins, D. et U.* (1967)
Assistant Professor, Exercise Science and Sport (1970)
B.S., East Stroudsburg University
M.S., University of Massachusetts

Sharon S. Hudacek, R.N. (1990)
Associate Professor, Nursing (1995)
B.S.N., M.S.N., College Misericordia
M.Ed., Ed.D., Columbia University

Robert E. Hueston, D. et U.* (1968)
Associate Professor, History (1976)
A.B., College of the Holy Cross
M.A., Ph.D., University of Notre Dame

Riaz Hussain, D. et U.* (1967)
Associate Professor, Economics/Finance (1985)
B.S., Forman College, Pakistan
M.S., University of Punjab, Pakistan
M.B.A., The University of Scranton
Ph.D., Johns Hopkins University
Ph.D., Lehigh University
Chartered Financial Analyst

Moses N. Ikiugu (1999)
Assistant Professor, Occupational Therapy (1999)
B.A., M.A., United States International University
Ph.D., Texas Woman's University

Paul M. Jackowitz, C.D.P., C.C.P., D. et U.* (1977-80; 1982)
Assistant Professor, Computing Sciences (1982)
B.S., The University of Scranton
M.S., Rensselaer Polytechnic Institute

Elizabeth J. Jacob (1998)
Associate Professor, Counseling/Human Services (2003)
B.A., New York University
M.S., The University of Scranton
Ph.D., Lehigh University

Jakub S. Jasinski (1987)
Chair, Department of Mathematics (1996)
Professor, Mathematics (1999)
M.S., Ph.D., University of Gdansk

Bernard J. Johns, D. et U.* (1961)
Associate Professor, Mathematics (1979)
A.B., Wilkes College
M.A., Bucknell University

Maria Poggi Johnson (1996)
Associate Professor, Theology/Religious Studies (2002)
B.A., Oxford University
Ph.D., University of Virginia

Roxanne T. Johnson (1993)
Associate Professor, Accounting (1999)
B.A., University of Delaware
B.B.A., University of Florida
Ph.D., The Pennsylvania State University

Francis X. Jordan, D. et U.* (1966)
Associate Professor, English (1976)
A.B., M.A., The University of Scranton
Ph.D., St. Louis University

Prasadarao V. Kakumanu, D. et U.* (1978)
Chair, Department of Operations and Information Management (1987)
Professor, Operations and Information Management (1984)
B.S., Andhra University
M.S., Patna University
M.S., Delhi University
Ph.D., Cornell University

John R. Kalafut, D. et U.* (1965)
Professor, Physics/Electrical Engineering (1974)
B.S., The University of Scranton
M.S., University of Delaware

John N. Kallianiotis (1990)
Associate Professor, Economics/Finance (1996)
B.A., University of Thessalonika
M.A., M.Ph., Ph.D., City University of New York

Thomas A. Kamla D. et U.* (1978)
Professor, Foreign Languages and Literatures (1987)
B.A., St. John's University, Minnesota
M.A., Ph.D., University of Wisconsin

Christie P. Karpiak (2001)
Assistant Professor, Psychology (2002)
B.S., M.S., Ph.D., University of Utah

Jan W. Kelly (1988)
Associate Professor, Communication (1988)
B.A., The Pennsylvania State University
M.A., San Francisco State University
Ph.D., University of Minnesota

Lawrence W. Kennedy (1992)
Associate Professor, History (1998)
A.B., A.M., Ph.D., Boston College

Stephen L. Klingman, D. et U.* (1973)
Assistant Professor, Exercise Science and Sport (1977)
B.S., M.S., Ithaca College

Richard Klonoski, D. et U.* (1981)
Professor, Philosophy (1994)
B.A., The University of Scranton
M.A., Kent State University
Ph.D., Duquesne University

Michael J. Knies (1996)
Assistant Professor, Library (1998)
B.A, M.A., The Pennsylvania State University
M.L.S., Rutgers University

Robert A. Kocis (1989)
Professor, Political Science (2000)
B.A., St. Vincent College
M.A., Ph.D., University of Pittsburgh

Nancy J. Kolodziej (2002)
Assistant Professor, Education (2002)
B.S., Montclair State University
B.S., M.Ed., East Stroudsburg University
Ed.D., Lehigh University

Edmund M. Kosmahl, D. et U.*(1983)
Professor, Physical Therapy (2000)
B.S., M.S., Temple University
Ed.D., Nova University

Gary G. Kwiecinski (1988)
Professor, Biology (2000)
B.S., Cornell University
M.S., Rutgers University
Ph.D., Cornell University

Richard A. Larsen (2000)
Associate Professor, English (2003)
B.S., Northern Arizona University
M.F.A., San Diego State University

Robyn Lawrence (1993)
Associate Professor, Accounting (2000)
B.S., University of California
M.S., California State University
Ph.D., University of Houston

Linda Ledford-Miller (1985)
Chair, Department of Foreign Languages and Literatures (2003)
Professor, Foreign Languages and Literatures (1999)
B.A., University of California, Irvine
M.A., The Pennsylvania State University
M.A., Ph.D., University of Texas at Austin

Peter M. Leininger (1999)
Assistant Professor, Physical Therapy (2002)
B.A., University of Michigan
M.S., Boston University

Lisa Ann Lesneski (2001)
Assistant Professor, Nursing (2002)
B.S.N., Marywood University
M.S., SUNY at Binghamton

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

John J. Levko, S.J., D. et U.* (1979)
Professor, Mathematics (1987)
B.A., M.S., Ph.D., Lehigh University
S.T.B., Gregorian University
M.A., John XXIII Institute, Maryknoll
S.E.O.L., S.E.O.D., Pontifical Oriental Institute, Rome, Italy

Rev. Albert M. Liberatore, Jr. (2001)
St. Pius X Chair in Theology (2001)
Ph.B., B.A., S.T.B., M.A., S.T.L., S.T.D./Ph.D. cand., Katholieke Universiteit te Leuven, Belgium

Deborah Eville Lo (1995)
Chair, Department of Education (2003)
Associate Professor, Education (2001)
B.S., M.S., Florida State University
Ph.D., University of Chicago

Daniel P. Mahoney, C.P.A. (1984)
Professor, Accounting (2002)
B.S., M.B.A., The University of Scranton
Ph.D., Syracuse University

David E. Marx (1987)
Chair, Department of Chemistry (1998)
Associate Professor, Chemistry (1992)
B.S., East Stroudsburg University
Ph.D., Binghamton University

Susan Fournier Mathews (1988)
Professor, Theology/Religious Studies (2000)
B.A., St. Anselm College
M.A., Ph.D., The Catholic University of America

Gary E. Mattingly, D. et U.* (1983)
Professor, Physical Therapy (1997)
B.S., St. Ambrose College
B.S., The University of Scranton
Ph.D., St. Louis University

Tata J. Mbugua (1998)
Assistant Professor, Education (2000)
B.A., Nairobi University
M.A., Ph.D., Ohio University

Robert W. McCloskey (1991)
Assistant Professor, Computing Sciences (1993)
B.S., The University of Scranton
M.S., Ph.D., Rensselaer Polytechnic Institute

Christine E. McDermott , D. et U.* (1979)
Assistant Professor, Biology (1979)
B.A., California State University at Fresno
Ph.D., University of Tennessee

John W. McGinley, D. et U.* (1970)
Professor, Philosophy (1979)
A.B., College of the Holy Cross
M.A., Gratz College
Ph.D., Boston College

John M. McInerney, D. et U.* (1966)
Professor, English (1977)
A.B., LeMoyne College
M.A., Ph.D., Loyola University, Chicago

Robert L. McKeage, D. et U.* (1974)
Associate Professor, Marketing/Management (1993)
B.S., M.B.A., The University of Scranton
M.A., Lehigh University
Ph.D., Temple University

Ronald H. McKinney, S.J. (1984)
Professor, Philosophy (1996)
B.A., University of Maryland
M.Div., Th.M., Weston School of Theology
M.A., Ph.D., Fordham University

Mary Helen McSweeney (1999)
Assistant Professor, Health Administration and Human Resources (1999)
B.A., Wellesley College
M.Phil., MIA, Columbia University
Ph.D., Graduate School of the City University of New York

Sharon M. Meagher (1989)
Professor, Philosophy (2003)
B.A., Boston College
Ph.D., State University of New York at Stony Brook

Michael Ofosu Mensah (1987)
Chair, Department of Accounting (2000)
Professor, Accounting (2003)
B.S., University of Ghana
M.B.A., N.E. Louisiana University
Ph.D., University of Houston

Rebecca L. Mikesell (1994)
Assistant Professor, Communication (1994)
B.S., M.S., Illinois State University
Ph.D., Ohio University

J. Patrick Mohr, S.J., D. et U.* (1975)
Professor, Philosophy (1991)
B.A., M.A., Spring Hill College
Ph.D., Georgetown University

Kenneth G. Monks (1990)
Professor, Mathematics (2000)
B.S., The Pennsylvania State University
M.S., Ph.D., Lehigh University

Kathleen K. Montgomery (1998)
Associate Professor, Education (2001)
B.S., Mansfield State University
M.A., George Washington University
D. Ed., The Pennsylvania State University

Oliver J. Morgan, Ph.D.(1990)
Chair, Department of Counseling and Human Resources (1997)
Professor, Counseling and Human Services (2002)
B.A., Fordham University
M.F.T., Hahnemann Medical University
M. Div., Weston School of Theology
Ph.D., Boston University

Mary Elizabeth Moylan, D. et U.* (1986)
Associate Professor (1995)
Assistant Librarian II (1990)
B.A., Marywood University
M.L.S., Villanova University
M.S., The University of Scranton

Mary E. Muscari (1992)
Associate Professor, Nursing (1997)
B.S.N., Pace University
M.S.N., P.N.P., Columbia University
Ph.D., Adelphi University

Donna M. Narsavage-Heald (1993)
Associate Professor, Chemistry (1999)
B.S., The University of Scranton
M.S., Ph.D., Rensselaer Polytechnic Institute

Linda S. Neyer (2000)
Assistant Professor, Library (2002)
B.S., University of Minnesota
M.L.S., State University of New York at Albany

Hong V. Nguyen , D. et U.* (1979)
Associate Professor, Economics/Finance (1985)
B.S., State University of New York at Brockport
M.A., Ph.D., Binghamton University

John C. Norcross (1985)
Professor, Psychology (1990)
B.A., Rutgers University
M.A., Ph.D., University of Rhode Island
Clinical Internship, Brown University School of Medicine
Licensed Psychologist

Kevin M. Nordberg, D. et U.* (1970)
Professor, Philosophy (1989)
A.B., Assumption College
M.A., Ph.D., University of Notre Dame

Kevin R. Norris, D. et U.* (1977)
Assistant Librarian II (1981)
B.S., M.L.S., University of Pittsburgh
M.A., The University of Scranton

Kelli S. O'Brien (2001)
Assistant Professor, Theology/Religious Studies (2002)
B.A., University of Arizona
M.A., Pacific Lutheran Theology Seminary
Ph.D., University of Notre Dame

John J. O'Malley, D. et U.* (1968)
Associate Professor, Psychology (1971)
B.S., The University of Scranton
M.S., Ph.D., Ohio University

Michael O'Steen (2000)
Assistant Professor, English (2000)
B.F.A., M.F.A., Carnegie Mellon University

Peter C. Olden (1993)
Associate Professor, Health Administration and Human Resources (1999)
B.S., Miami University
M.H.A., Duke University
Ph.D., Virginia Commonwealth University

Masood Otarod (1988)
Professor, Mathematics (2001)
B.S., Pahlavi University
M.S., Sc.D., Columbia University

Ann A. Pang-White (1997)
Associate Professor, Philosophy (2003)
B.A., Tung-Hai University
M.A., University of South Carolina–Columbia
Ph.D., Marquette University

William J. Parente (1970)
Professor, Political Science (1973)
A.B., Xavier University
Ph.D., Georgetown University

Robert A. Parsons, D. et U.* (1979)
Professor, Foreign Languages and Literatures (1991)
B.A., M.A., West Virginia University
M.A., Ohio University
Ph.D., The Pennsylvania State University

Richard H. Passon, D. et U.* (1964)
Professor, English (1984)
University Professor (2000)
A.B., King's College
M.A., Ph.D., University of Notre Dame

Lee M. Penyak (2000)
Assistant Professor, History (2000)
B.A., Fairfield University
M.A., Ph.D., University of Connecticut

Paul M. Perdew (1985)
Associate Professor, Mathematics (1985)
B.A., Washington and Jefferson College
M.A., University of Hawaii
Ph.D., University of Idaho

Njegos Petrovic, D. et U.* (1967)
Professor, Foreign Languages and Literatures (1974)
A.B., Classical College, Belgrade, Yugoslavia
M.A., Ph.D., University of Montreal

Iordanis Petsas (2002)
Assistant Professor, Economics/Finance (2002)
B.A., University of Thessaloniki, Greece
M.A., Ph.D., Indiana University

Virginia A. Picchietti (1995)
Associate Professor, Foreign Languages and Literatures (2001)
B.A., Rosary College
M.A., Ph.D., Indiana University

Charles R. Pinches (1990)
Professor, Theology/Religious Studies (1996)
B.A., Wheaton College
M.A., Ph.D., University of Notre Dame

Richard M. Plishka (1986)
Chair, Department of Computing Sciences (1990)
Associate Professor, Computing Sciences (1989)
B.S., The University of Scranton
M.S., M.B.A., Syracuse University

Krzysztof Plotka (2001)
Assistant Professor, Mathematics (2002)
M.S., University of Gdansk
Ph.D., West Virginia University

Eric A. Plumer (2001)
Assistant Professor, Theology/Religious Studies (2001)
B.A., Fairfield University
B.A., M.A., University of Oxford, England
Ph.D., University of Notre Dame

Susan L. Poulson (1990)
Associate Professor, History (1996)
B.A., George Washington University
M.A., Ph.D., Georgetown University

Satyanarayana V. Prattipati (1990)
Associate Professor, Operations and Information Management (1996)
B.S., Andhra University
M.B.A., Indian Institute of Management
Ph.D., State University of New York at Buffalo

John B. Pryle, D. et U.* (1967-1969; 1972)
Assistant Professor, Sociology/Criminal Justice (1972)
B.S., The University of Scranton
M.A., Fordham University

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

Joseph L. Quinn, S.J., D. et U.* (1979)
Assistant Professor, English (1979)
A.B., Ph.L., A.M., Fordham University
S.T.B., Woodstock College
A.M., Ph.D., Harvard University

Murli Rajan, C.F.A., (1989)
Associate Professor, Economics/Finance (1995)
B.C.A., Victoria University
M.Comm., Delhi School of Economics, University of Delhi
M.B.A., The University of Scranton
Ph.D., Temple University

William V. Rakauskas, D. et U.* (1969)
Professor, English (1979)
B.S., M.A., The University of Scranton
Ed.D., Temple University

Donna D. Ramos, D. et U.* (1974)
Assistant Librarian II (1978)
B.A., State University of New York at New Paltz
M.S.L.S., State University of New York at Geneseo

Matthew M. Reavy (1998)
Assistant Professor, Communication (1998)
B.A., M.A., The University of Scranton
Ph.D., University of Missouri – Columbia

Carol L. Reinson (1997)
Assistant Professor, Occupational Therapy (2001)
A.A.S., Herkimer County Community College
B.S., Utica College
M.S., State University of New York at New Paltz
Ph.D., Syracuse University

John B. Robertson, Jr., D. et U.* (1969)
Assistant Professor, Exercise Science and Sport (1969)
B.S., Springfield College
M.A., Trenton State College

Paula Roe-Prior (2001)
Assistant Professor, Nursing (2002)
B.S. St. Joseph's University
B.S.N., Thomas Jefferson University
M.S.N., Ph.D., University of Pennsylvania

William V. Rowe (1990)
Chair, Philosophy (1995)
Professor, Philosophy (1996)
B.A., Allegheny College
M.A., Pittsburgh Theological Seminary
M.Phil., Institute for Christian Studies
Ph.D., Duquesne University

David A. Rusak (2000)
Assistant Professor, Chemistry (2000)
B.S., University of North Carolina
Ph.D., University of Florida

Thomas F. Sable, S.J. (1985)
Associate Professor, Theology/Religious Studies (1991)
B.A., Boston College
M.S., Georgetown University
M. Div., Jesuit School of Theology
Ph.D., Graduate Theological Union

Robert P. Sadowski (1987)
Professor, Communication (1987)
B.A., Michigan State University
M.S., Syracuse University
Ph.D., University of Iowa

John P. Sanko (1990)
Chair, Physical Therapy (2003)
Associate Professor, Physical Therapy (1997)
B.S., M.S., East Stroudsburg State College
Ed.D., Columbia University

Edward M. Scahill (1989)
Associate Professor, Economics/Finance (1994)
B.S., St. Bonaventure University
M.A., Ph.D., Binghamton University

Carl M. Schaffer (1988)
Professor, English (2003)
B.A., Farleigh Dickinson University
M.A., The University of Michigan
M.F.A., University of Iowa

Rose Sebastianelli (1988)
Professor, Operations and Information Management (2003)
Alperin Professor of Business Administration (1996)
B.S., Indiana University of Pennsylvania
Ph.D., The Pennsylvania State University

Robert W. Shaffern (1995)
Associate Professor, History (2001)
B.A., DePaul University
M.A., Ph.D., University of Notre Dame

Marc B. Shapiro (1996)
Associate Professor, Theology/Religious Studies (2002)
B.A., Brandeis University
Ph.D., Harvard University

Ivan A. Shibley (2000)
Assistant Professor, Education (2000)
B.S., M.Ed., East Stroudsburg University
Ed.D., The Pennsylvania State University

James R. Sidbury, D. et U.* (1983)
Associate Professor, Computing Sciences (1983)
B.S., Duke University
M.S., Ph.D., Auburn University

Carole S. Slotterback (1995)
Associate Professor, Psychology (2000)
B.S., Wilson College
M.S., New Mexico Highlands University
Ph.D., Northern Illinois University

Terri Freeman Smith (1995)
Instructor, Health Administration and Human Resources (2003)
B.S., The Pennsylvania State University
M.S., The University of Scranton

Steven A. Solieri (1999)
Assistant Professor, Accounting (2000)
B.B.A., Florida Atlantic University
M.S.M.M., Kettering University
M.B.A., University of Michigan-Flint
M.S., Pace University
M.S., Ph.D., Binghamton University

Robert A. Spalletta, D. et U.* (1983)
Chair, Department of Physics/Electrical Engineering (1995)
Professor, Physics/Electrical Engineering (2003)
B.S., Stevens Institute of Technology
M.S., Ph.D., University of Rochester

E. Springs Steele, D. et U.* (1979)
Chair, Department of Theology/Religious Studies (2001)
Professor, Theology/Religious Studies (1996)
B.A., M.A., Ph.D., University of Notre Dame

J. Michael Strong, D. et U.* (1972)
Associate Professor, Exercise Science and Sport (1982)
B.S., Concord College
M.S., West Chester State College

Michael A. Sulzinski (1990)
Professor, Biology (2001)
B.S., The Pennsylvania State University
Ph.D., Cornell University

Delia A. Sumrall (1992)
Associate Professor, Management/Marketing (1995)
B.S., M.B.A., University of Southern Mississippi
D.B.A., Mississippi State University

Terrence E. Sweeney (1992)
Associate Professor, Biology (1998)
B.A., Colgate University
M.S., Ph.D., University of Rochester

Narda Tafuri (1994)
Associate Professor, Library (2003)
B.A., State University of New York at Oneonta
M.A., New York University
M.S., State University of New York at Albany

Nabil A. Tamimi (1993)
Professor, Operations and Information Management (2003)
B.S., The Pennsylvania State University
M.B.A., The University of Scranton
Ph.D., Temple University

Charles E. Taylor, C.D.P., D. et U.* (1974)
Associate Professor, Computing Sciences (1983)
B.S., M.B.A., West Virginia University

Len Tischler (1990)
Associate Professor, Management/Marketing (1997)
B.A., Wabash College
M.B.A., Ph.D., University of Maryland

Anne Marie Toloczko (1992)
Associate Professor, Counseling and Human Services (1998)
B.A., M.A., Marywood University
Ph.D., Lehigh University
Licensed Psychologisr

Daniel S. Townsend (1987)
Professor, Biology (2003)
B.A., College of the Holy Cross
M.S., Central Michigan University
Ph.D., State University of New York at Albany

Susan Trussler (1985)
Associate Professor, Economics/Finance (1992)
B.Sc., London School of Economics
M.S., Ph.D., The Pennsylvania State University
A.P.C., New York University

Gretchen Van Dyke (1994)
Associate Professor, Political Science (2000)
B.A., Trinity College
M.A., Ph.D., University of Virginia

Argyrios C. Varonides (1989)
Associate Professor, Physics/Electrical Engineering (1998)
B.S., University of Thessalonika, Greece
M.S., Temple University
Ph.D., Drexel University

Joe A. Vinson, D. et U.* (1974)
Professor, Chemistry (1990)
B.S., University of California, Berkeley
M.S., Ph.D., Iowa State University

Janice Voltzow (1996)
Associate Professor, Biology (1998)
B.S., Yale University
Ph.D., Duke University

Robert F. Waldeck (2001)
Assistant Professor, Biology (2001)
B.A., Lehigh University
M.P.A., University of Delaware
M.A., Ph.D., Temple University

Roger D. Wallace, D. et U.* (1976)
Associate Professor, Communication (1981)
A.B., Butler University
M.A., Bowling Green University
Ph.D., The University of Michigan

William G. Wallick (1998)
Assistant Professor, Health Administration and Human Resources (1999)
B.S., Marywood University
M.S., The University of Scranton
Ph.D., The Pennsylvania State University

Cheng-Yee Wang (1981)
Assistant Librarian II (1990)
Publications Librarian (1988)
B.A., Narional Taiwan University
M.L.S., Villanova University
M.S., The University of Scranton

Edward F. Warner, D. et U.* (1964)
Chair, Department of Communication (2001)
Professor, Communication (1980)
A.B., King's College
M.S., The University of Scranton

Joan M. Wasilewski (1988)
Associate Professor, Chemistry (1994)
B.S., King's College
Ph.D., University of Pennsylvania

Gloria Tansits Wenze (1999)
Assistant Professor, Education (2000)
B.S., Mansfield State College
M.A., California State University
Ph.D., Ed.S., University of New Mexico

Daniel J. West (1990)
Chair, Health Administration and Human Resources (2002)
Associate Professor, Health Administration and Human Resources (1994)
B.S., M.Ed., Ph.D., The Pennsylvania State University

Stephen E. Whittaker, D. et U.* (1983)
Professor, English (1994)
B.A., M.A., Ph.D., University of Texas

David A. Wiley (1988)
Professor, Education (1999)
B.S., M.S., Ed.D., Temple University

Joseph P. Wilson (1985)
Professor, Foreign Languages and Literatures (1999)
B.A., University of Toledo
Ph.D., University of Iowa

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

Gary N. Wodder, D. et U.* (1974)
Chair, Department of Exercise Science and Sport (1974)
Associate Professor, Exercise Science and Sport (1997)
B.S., M.A., Ph.D., Northwestern University

Barry Allen Wolf (2001)
Instructor, Occupational Therapy (2002)
B.S., Kean College
M.Ed., Temple University

Loreen Wolfer (1996)
Associate Professor, Sociology/Criminal Justice (2002)
B.A., Franklin and Marshall College
M.A., Ph.D., Cornell University

Zhong Cheng Xiong (1988)
Associate Professor, Mathematics (1996)
B.S., Wuhan University
M.S., Ph.D., Lehigh University

Midori Yamanouchi-Rynn, D. et U.* (1975)
Professor, Sociology/Criminal Justice (1992)
B.A., Sophia University
M.A.L.S., The University of Michigan
M.A., Ph.D., Michigan State University

Christine A. Zakzewski (1992)
Associate Professor, Physics/Electrical Engineering (1998)
B.S., Rutgers University, Pistcataway
M.S., Ph.D., Rutgers University Graduate School of New Brunswick

Margarete Lieb Zalon, R.N.C.S. (1988)
Professor, Nursing (2000)
B.S.N., Duke University
M.A., Ph.D., New York University

Joseph R. Zandarski, C.P.A., D. et U.* (1951)
Professor, Accounting (1971)
B.S., The University of Scranton
M.B.A., New York University
Ph.D., University of Pittsburgh

Habib K. Zanzana (1995)
Associate Professor, Foreign Languages and Literatures (2001)
B.S., M.A., Ph.D., Indiana University

John M. Zych (1991)
Associate Professor, Management and Marketing (1997)
B.S., Worcester Polytechnic Institute
M.B.A., Babson College
D.B.A., Boston University

Professional Staff

Mary Ellen Anuszewski (2002)
Case Manager/Nurse Practitioner, Healthy Northeast Access Program (2002)
A.S., Luzerne County Community College
B.S.N., M.S.N., College Misericordia

Mary Kay Aston (1993)
Enrollment Management Information Coordinator (2000)
B.S., Marywood University
M.S., The University of Scranton

Kevan S. Bailey (1985)
Production Manager, Printing Services (1998)
B.S., The University of Scranton

Lisa Baumann (2002)
Project Director/Department Head, Healthy Northeast Access Program (2002)
B.S., Indiana University
M.H.A., The University of Scranton

Luke A. Benedict (2001)
Financial Manager, Small Business Development Center (2002)
B.S., Clarion University

Janet H. Bennett (1990)
Records Analyst, Registrar's Office (1998)

Regina B. Bennett (1987)
Assistant Dean, Graduate School (1996)
B.A., M.S., The University of Scranton

Peter J. Blazes (1991)
Director of International Students and Scholar Services, Office of International Programs and Services (2002)
B.A., Widener University
Ed.M., Boston University

Joseph R. Bochicchio (2001)
Head Women's Soccer Coach, Athletics (2001)
A.A., Keystone College
B.S., M.Ed., State University of New York at New Paltz

Cheryl Y. Boga, D.et U.* (1981)
Director of Performance Music (1991)
B.M., Marywood University

Gail L. Bontrager (1996)
Assistant Director of Information Resources Customer Service, Information Resources (2003)
B.A., M.P.A., Indiana State University

Geri Maier Botyrius (1992)
Academic Advisor, CAS Advising Center (1992)
A.A., Luzerne County Community College
B.A., King's College
M.S., The University of Scranton

James F. Boyle (1999)
Internal Auditor, Treasurer's Office (1999)
B.S., The University of Scranton

Susan L. Bradley (1991)
Assistant to the Dean, KSOM (1998)
A.S., The Pennsylvania State University
B.S., The University of Scranton

Brenda M. Brewer (1993)
Assistant Athletic Director/Head Coach, Field Hockey and Women's Lacrosse (1999)
B.S., Bloomsburg University
M.B.A., The University of Scranton

Timothy A. Briggs (2000)
Operations Manager, Public Safety (2000)

Mary Clare A. Brill (1993)
Academic Information and Services Specialist/ Specialist Enrollments, Registrar's Office (2003)

Melinda B. Brink (1999)
Assistant Bursar (1999)
B.A., Thiel College
M.S., The University of Scranton

William J. Buckley (1990)
Financial Area Coordinator of Systems Development (1990)
B.S., Bloomsburg University

Ray E. Burd (1989)
Director of Printing and Mailing Services (1994)
B.S., Empire State College
M.S., Shippensburg University

William R. Burke (1986)
Director of Financial Aid (1990)
B.S., Bloomsburg University;
M.B.A., The University of Scranton

Lisa A. Burns (2001)
Clinical Education Coordinator, Occupational Therapy (2001)
B.S., Indiana University–Purdue University of Indiana

Debra Busacco (2003)
Director, Center for Teaching and Learning Excellence (2003)
B.A., Marywood University
M. Phil., M.S., Ph.D., Columbia University

Gina M. Butler (1992)
Assistant Dean, CAS (1995)
B.A., The Pennsylvania State University
M.S., The University of Scranton

Eileen Callahan (1994)
Director of Research Services (1996)
B.A., University of Pennsylvania
M.S., The University of Scranton

Laura C. Carroll (2000)
Legal Assistant, Office of General Counsel (2000)

Denise E. Casagrande (2000)
Direct Service Coordinator and Transfer Credit Specialist, Registrar's Office (2003)
B.S., The University of Scranton

Maureen P. Castaldi (1985)
Project/Support Leader, Systems Software Resources (1996)
B.S., The University of Scranton

Patricia M. Cegelka (2000)
Assistant Director of Financial Aid (2000)
B.A., King's College

Cheryl A. Collarini (1980)
Recruiting Coordinator, Career Services (1997)
B.S., The University of Scranton

Michael D. Collins (1986)
Help Desk Analyst, Information Resources (2000)
B.S., The University of Scranton

Robert J. Collins (1992)
Director, Systems and Software Resources (1996)
B.S., East Stroudsburg University

Sharon D. Conway (1988)
Software Engineer, Royal Technology Group (2002)
B.S., University of Colorado

Carol L. Cornell (1988)
Data Processing Coordinator, Systems and Software Resources (2002)
A.A., The University of Scranton

Lisa Cornell, D. et U.* (1983)
Project/Support Team Leader, Systems and Software Resources (1996)
B.S., The University of Scranton

Kevin M. Corr (2001)
Admissions Counselor, Admissions (2001)
B.A., The University of Scranton

Joseph P. Cortese, SPHR (1990)
Assistant Director/Benefits Manager, Human Resources (1992)
B.S., King's College
M.S., The University of Scranton

Margaret E. Craft (1988)
Assistant Director of Library for Technical Services, Library (1996)
A.B., Central Michigan University
M.A., The University of Scranton
A.M.L.S., University of Michigan

Mark A. Cruciani (1998)
Purchasing Agent, Purchasing (1998)
B.S., The University of Scranton
M.H.A.. Wilkes University

Robert F. Curley (1994)
Senior Systems Administrator, Systems and Software Resources (1996)
B.S., Fairfield University
M.A., Arcadia University

Joseph J. Curran (1999)
Campus Minister, Campus Ministries (2003)
B.A., The University of Scranton
Ph.D. cand., Boston College

Paul T. Cutrufello (1998)
Athletic Trainer, Athletics (1998)
B.S., The Pennsylvania State University
M.S., Bloomsburg University

Carl G. Danzig (2001)
Head Men's Basketball Coach, Athletics (2001)
B.A., Baker University
M.A., University of Missouri

Vito G. DelVecchio (1969)
Research Director, Institute of Molecular Biology and Medicine (1999)
B.A., The University of Scranton
M.S., St. John's University
Ph.D., Hahnemann University

James Devers, AIA (1985)
Director of Physical Plant (1989)
A.S., Luzerne County Community College
B.S., The University of Scranton

Robyn L. Dickinson (1999)
Research Analyst, Assessment and Institutional Research Office (1999)
B.S., Bucknell University
M.Ed., The Pennsylvania State University

Susan A. Dillon (1999)
Outreach Business Consultant, Small Business Development Center (1999)
B.S., University of Pennsylvania

Holly S. Doenges (2000)
Mail Center Manager, Mailing Services (2003)
A.S., Temple University
B.S., The University of Scranton

Kent Drake-Deese (2000)
Assistant Dean/Director of Residence Life (2000)
B.A., M.Ed., St. Lawrence University

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

Michel Eschenbrenner (2000)
Postdoctoral Research Assistant, Institute of Molecular Biology and Medicine (2000)
B.A., M.S., Bourgogne University
Ph.D., Grenoble University

Frank Estock (2000)
Data Management Technician, Institute of Molecular Biology and Medicine (2001)

Edward C. Evans (2002)
Research Technician, Institute of Molecular Biology and Medicine (2002)
B.S., King's College

Sharon L. Evans, D. et U.* (1979)
Parking/Traffic Manager, Public Safety (1994)
B.S., East Stroudsburg University

Barbara T. Evans-Mericle (1990)
Counselor, Counseling Center (1990)
B.A., Lockhaven University
M.S., The University of Scranton
National Board Certified Counselor

Rebekah M. Ferguson (2001)
Admissions Counselor, Admissions (2001)
B.A., The University of Scranton

Gustavo N. Fernandez (1996)
Software Analyst Supervisor, Desktop and Instructional Resources (2000)
B.S., Bloomsburg University

Stephen R. Fisk (1991)
Employment Manager, Human Resources (1991)
B.S., The University of Scranton

Philip A. Florio, S.J. (2001)
Campus Minister, Campus Ministries (2003)
B.A., M.S., St. Joseph's University
M.Div., M.Phil., Weston College

James J. Franceschelli, D. et U.* (1982)
Director, Desktop and Instructional Resources (1996)
A.S., The Pennsylvania State University

Janine L. Freeman (1987)
Purchasing Systems Administrator, Purchasing (2000)
B.S., The University of Scranton

James K. Gaffney (1997)
Director of Operations and Maintenance, Physical Plant (2002)
B.S., King's College
M.S., Naval Postgraduate School

Peter M. Galbraith (1997)
Executive Director of Development, Institutional Advancement (1999)
B.S., U.S. Naval Academy

Marise Garofalo (1998)
Director for Information Technologies, Institutional Advancement (2003)
A.A., B.S., The University of Scranton

Elaine Gayman (1993)
Grant Accountant, Treasurer's Office (1993)
A.S., Luzerne County Community College
B.S., King's College
M.B.A., The University of Scranton

Stephen P. Gilbody (1997)
Network Administrator, Network Resources (1997)
A.S., Williamsport Area Community College

Frank M. Gilmartin (1990)
Career Experience Coordinator, Career Services (1997)
B.S., M.S., The University of Scranton

Renee S. Giovagnoli-Kurtz (2002)
Lab Manager, Institute of Molecular Biology and Medicine (2002)
B.S., Marywood University

Barbara E. Gleason, D. et U.* (1982)
Assistant Dean, Kania School of Management (1995)
Director of KSOM Advising Center (1988)
B.S., M.S., The University of Scranton

James L. Goonan (1987)
Director of Graduate Admissions, Graduate School (1990)
B.S., M.B.A., The University of Scranton

Lucia M. Granito, D. et U.* (1983)
Assistant to Comptroller, Treasurer's Office (1983)
B.S., M.B.A., The University of Scranton

Sharon A. Grasso (1985)
Assistant Dean, Director of Advising Center, Dexter Hanley College (1995)
B.S., M.A., The University of Scranton

Andrew J. Gregorwicz (2001)
Financial Analyst, Treasurer's Office (2001)
B.S., The University of Scranton

Eugeniu Grigorescu (1998)
Institutional Technical Support Analyst, Office of Instructional Technologies (1998)
B.A., M.S., Bloomsburg University

Barbara Griguts (1991)
Academic Counselor, KSOM Advising Center (1991)
B.A., The Pennsylvania State University
M.S., The University of Scranton

Judith A. Gunshannon (1995)
Secretary, President's Office/Board of Trustees (1995)

William F. Gunshannon (1989)
Departmental Systems Administrator, Computing Sciences (1992)

Denise Gurz (1995)
Programmer Analyst, Systems and Software Resources (1999)
B.S., Bloomsburg University

Adrienne L. Hamson (2001)
Admissions Counselor, Admissions (2001)
B.S., The University of Scranton

Scott D. Harron (1998)
Computer Instructor/Trainer, Center for Continuing Education (1998)
A.A., Community College of the Air Force
B.S., Bellevue College

Deborah Hazen (1991)
Office/Operations Manager, Student Affairs (2002)
A.A., Penn State University
B.S., The University of Scranton

Karen V. Heckman (1989)
Media Resources Collection Supervisor, Library (1993)
A.A., B.S., The University of Scranton

Kimberly J. Hepler (2000)
Compensation/HRIS Specialist, Human Resources (2000)
B.S., King's College
M.B.A., The University of Scranton

Larry J. Hickernell (1984)
Web Technologist, Systems and Software Resources (2003)
A.S.B., Central Pennsylvania Business School
B.A., The University of Scranton

Terry Hocking (1990)
Software Analyst, Systems and Software Resources (1996)
A.S., Lackawanna Junior College

Kathryn A. Holecko (1992)
Program Coordinator, Continuing Education (1996)

Ann E. Hollenbeck (1998)
Associate Lab Supervisor-Chemistry (1998)
B.S., The University of Scranton

Mary Beth Holmes (1992)
Director of Radio and Television, Network Resources (1996)
B.A., The University of Scranton
M.S., Ph.D. cand., Syracuse University

Diana A. Howe (2001)
Academic Advisor, Panuska College Advising Center (2001)
B.A., St. Lawrence University
M.S.W., Marywood University

Cindy L. Hricko (1985)
Project/Support Team Leader, Systems and Software Resources (1996)
B.S., M.S., The University of Scranton

Margaret F. Hynosky (1993)
Associate Director of Financial Aid (2000)
B.A., The University of Scranton

Diane M. Jachimowicz (1999)
Software Analyst, Desktop and Instructional Resources (1999)
B.A., Millersville University

Erin E. Jennings (2002)
Area Coordinator, Residence Life (2002)
B.Mus., Moravian College

Jane M. Johnson (1990)
Associate Director, Intramurals/Recreation (2000)
B.S., Marywood College
M.S., The University of Scranton

Karen A. Jones (1992)
Associate Registrar, Registrar's Office (2003)
B.A., Wilkes University

Lisa A. Jones (2001)
Admissions Counselor, Admissions (2001)
B.S., The University of Scranton

Rose Ann Jubinski (1984)
Project/Support Team Leader, Systems and Software Resources (1996)
B.S., M.B.A., The University of Scranton

Annette Barosi Kalwaytis, D. et U.* (1982)
Library Associate Circulation Supervisor (1985)
B.S., M.S., The University of Scranton

Ellen L. Kanavy (1997)
Assistant to the Rector, Jesuit Community (1998)
B.A., Marywood University
M.S., The University of Scranton

Theresa J. Kaplan (1988)
Assistant Director, Small Business Development Center (2001)
B.S., M.S., The University of Scranton

Marie E. Karam (1988)
Director of the Language Learning Center, Foreign Languages and Literatures (1994)
B.A., Marywood University
M.A., The Pennsylvania State University

Paulette Karlavige (1989)
Payroll Manager, Treasurer's Office (1995)

Ann M. Kazmierski (1987)
LAN Administrator/Lab Support Analyst, Desktop and Instructional Resources (1998)

Laura B. Kelly (2001)
Assistant Registrar, Registrar's Office (2003)
B.S., M.S., The University of Scranton

Robert Kennedy (2003)
Instructional Technology Services Coordinator, Office of Instructional Technologies (2003)
B.A., SUNY College at Cortland

Robert J. Klem (1987)
Software Analyst, Systems and Software Resources (1996)
B.S., Marywood University

Kathleen R. Kopcik, N.C.C., D. et U.* (1974)
Counselor, Counseling Center (1974)
B.A., Marywood University
M.S., The University of Scranton
National Board Certified Counselor

Mary A. Kovalcin (1998)
Library System Specialist, Library (2000)
B.A., College Misericordia

Christopher C. Krall (1994)
Senior Systems Administrator, Systems and Software Resources (1996)
A.S., The Pennsylvania State University
B.S., The University of Scranton

Scott A. Kramer (2001)
Financial Aid Counselor (2001)
B.A., Bloomsburg University

Francis X. Kranick (1994)
CAD Drafter/CAFM Operator, Physical Plant (1994)
A.S., Johnson School of Technology

John Kraybill-Greggo (1997)
Director, Counselor Training Center, Counseling and Human Services (2000)
B.S.W., Mansfield University
M.S.W., Marywood University

Bernard Krzan (2002)
Academic Advisor, Panuska College Advising Center (2002)
B.A., The University of Scranton
M.A., Fordham University

Gretchen Kukuchka (2002)
Manager of Training and Seminar Development, Small Business Development Center (2002)
B.A., Virginia Tech

Marc Kudrich (1997)
Bursar (1997)
B.S., M.S., The University of Scranton

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

Mary Ann T. Kuzdro (1989)
Records Analyst, Graduate School (2002)
Anthony J. Laboranti (1990)
Supervisor, Building/Grounds, Physical Plant (1990)
Cynthia LaCapra (2002)
Biology Lab Supervisor (2002)
B.S. The University of Scranton
Ruth H. Lancia, R.N.C. (1991)
Nurse, Student Health Services (1991)
R.N., Presbyterian University of Pennsylvania Medical Center
B.S., The University of Scranton
Jason Langdon (2001)
Associate Director of Admissions, Admissions (2001)
B.A., Wilkes University
Zim E. Lawhon, D. et U.* (1964)
Registrar Emeritus (1989)
Advisor, CAS Academic Advising Center (1989)
Professor of Military Science (1964)
Col., U.S. Army – Ret.
A.B., M.S., Princeton University
Arch A. Leombruni (2000)
Web Technologist, Systems and Software Resources (2003)
B.S., The University of Scranton
Eloise T. Libassi (1996)
Grants Information Specialist, Research Services (1996)
B.A., University of Maryland
M.A., Boston College
Francene M. Liples (1992)
Senior Designer, Public Relations (1997)
B.F.A., Marywood University
Toby A. Lovecchio (1997)
Director of Athletics (1997)
B.S., The University of Scranton
M.Ed., Temple University
James F. Loven (2000)
Laboratory Equipment Manager (2000)
B.S., The Pennsylvania State University
Mary Jane Lucas (2002)
Director of Liturgical Music and Liturgical Ministries, Campus Ministries (2003)
B.M., M.A., Marywood University
Lorraine T. Mancuso, D. et U.* (1982)
Assistant Director, Systems and Software Resources (1996)
B.S., M.B.A., The University of Scranton
Catherine C. Marshall (2000)
Coordinator of Admissions for Adult, Part-Time and Transfer Students, Admissions (2002)
B.A., Appalachian State University
Thomas D. Masterson, S.J., D. et U.* (1976)
University Chaplain (1989)
A.B., M.A., Fordham University
Ph.L., S.T.B., S.T.L., Woodstock College
M.A., Ph.D., Georgetown University
Anthony Maszeroski (2002)
Network Security Specialist, Network Services (2002)
B.S., The University of Scranton
Eric Matatics (2002)
Director of Field Placement (2002)
B.A., Messiah College
M.S., University of New Hampshire
Carolyn F. Matrone (1989)
Program Coordinator, Continuing Education (1998)
Alan R. Mazzei (1994)
Senior Development Officer, Institutional Advancement (2000)
B.A., The University of Scranton
Mark M. McAllister (1984)
Computer Operations Administrator, Systems and Software Resources (2002)
Mary Ann McAndrew (1981)
Learning Specialist, Center for Teaching and Learning Excellence (2003)
B.S., M.S., The University of Scranton
Brian McCabe (2002)
Area Coordinator, Residence Life (2002)
B.A., Gonzaga University
M.Ed., Seattle University
Donald E. McCall (2001)
Assistant Help Desk Coordinator, Information Resources (2001)
B.S., Baptist Bible College
Susan McCrea (1988)
Systems Coordinator for Residence Life (1996)
Constance E. McDonnell, D. et U.* (1983)
Assistant Director, Career Services (1983)
B.A., University of Denver
M.A., Marywood University
Aileen A. McHale (1988)
Instructional Technology and Enrichment Specialist, Center for Teaching and Learning Excellence (2003)
B.S., King's College
John F. McNamara, D. et U.* (1975)
Comptroller, Treasurer's Office (1982)
B.S., The University of Scranton
Margaret McNulty (2000)
Director of Corporate and Foundation Relations, Institutional Advancement (2000)
B.S., M.S., The University of Scranton
Patricia A. Mecadon (1955)
Production Manager, University Press (2000)
B.S., The University of Scranton
Barbara C. Mericle (1990)
Counselor, Counseling Center (1999)
B.A., Lock Haven University
M.S., The University of Scranton
Vincent F. Merkel D. et U.* (1978)
Senior Consultant, Desktop and Instructional Resources (1996)
B.S., The University of Scranton
Christian A. Merz (2000)
Research Technician, Institute of Molecular Biology and Medicine (2000)
B.S., King's College
Tabbi Miller (2002)
Assistant Director of Research, Institute of Molecular Biology and Medicine (2002)
B.S., The University of Scranton
M.S., East Stroudsburg University
Ph.D., Binghamton University

Darlene A. Miller-Lanning (1991)
Director, University Art Gallery/Adjunct Professor, History Department (1998)
B.F.A., Wilkes University
M.F.A., Marywood University
Ph.D., Binghamton University

Maria E. Montenegro (1990)
Business Consultant, Small Business Development Center (1990)
B.S., Fordham University

Colleen Moran (2002)
Admissions Counselor, Admissions (2002)
B.S., The University of Scranton

Ellen M. Morgan, N.C.C. (1990)
Counselor, Counseling Center (2000)
B.S., M.S., The University of Scranton

Danielle L. Morse (1991)
Software Analyst/ResNet Coordinator, Desktop and Instructional Resources (2003)
B.S., Wilkes University
M.S., The University of Scranton

Lawrence J. Morton, D. et U.* (1969)
Assistant to Vice President for Student Affairs (1992)
A.B., St. Bonaventure University
M.S., Syracuse University
M.S., The University of Scranton
D.Ed., The Pennsylvania State University

Cesar V. Mujer (2000)
Proteomics Scientist, Institute of Molecular Biology and Medicine (2000)
B.S., M.S., University of the Philippines at Los Banos Laguna
Ph.D., Ohio State University

Andrea J. Mulrine (1998)
Database Management Systems Specialist, Royal Technology Group (2000)
B.S., The University of Scranton

James V. Muniz (1990)
Academic Development Program Director/Reading Specialist, Center for Teaching and Learning Excellence (2003)
B.S., Kutztown State College
M.S., Marywood University
M.S., The University of Scranton

Mark R. Murphy (1991)
Assistant Director of Utilities, Plant Engineer, Physical Plant (1998)
B.S.E.E., Wilkes University

JoAnn L. Nicoteri (1985)
Family Nurse-Practitioner, Student Health Services (1995)
B.S.N., University of Pennsylvania
M.S., F.N.P., Binghamton University

Mark Noll (1997)
Director of Research and Operations for Institutional Advancement (2002)
B.A., King's College

Maria Noone (2003)
Case Manager/Nurse Practitioner, Healthy Northeast Access Program (2003)
B.S.N., East Stroudsburg University
M.S., State University New York, Binghamton

Lisa Notarianni (1991)
Manager of Telecommunications and Business Services, Network Resources (2003)
A.S., Lackawanna Junior College

Beverly J. O'Hora (1992)
Secretary to Dean/Office Manager, Dexter Hanley College (2001)

Erin E. O'Malley (2001)
Assistant Director, Residence Life (2002)
B.S., M.S., The University of Scranton

Anthony Pamelia (1994)
Physics/EE Lab Staff (1994)
B.S., M.S.,The University of Scranton
M.S., Weston School of Theology
M.S., University of Massachusetts at Lowell

G. Donald Pantle, S.J., D. et U.* (1980)
Instructor of Spanish and German (part-time) (2003)
Spiritual Director for Women Faculty, Staff and Students of the University (2003)
Counselor for St. Ignatius Retreat Movement for Students and Alumni (2003)
Counselor at Spanish House (2003)
B.A., Bellarmine College
M.A., Middlebury College

Frank D. Parker, D. et U.* (1969)
Purchasing Agent, Purchasing Department (1991)
B.S., The University of Scranton

Barbara T. Parkman (1998)
Coordinator, Nonprofit Resource Center (1998)
B.S., Williams College
M.S., The University of Scranton

Deborah Parise (1999)
Administrative Manager, Institute of Molecular Biology and Medicine (1999)
B.S., State University of New York at Binghamton

Margaret A. Parsons (1996)
Academic Advisor/Counselor, KSOM Advising Center (1996)
B.S., The Pennsylvania State University
M.A., The University of Scranton

Susan E. Patten (1994)
Classroom and Schedule Coordinator, Registrar's Office (1998)

Paul J. Perhach, D. et U.* (1982)
Director of Career Services (1982)
B.A., King's College
M.S., Marywood University

Joseph M. Perri (1996)
Web/Systems Analyst, Royal Technology Group (1998)
B.S., Marywood University

Harold Phillips (1997)
LAN Administrator/Lab Support Analyst (1998)
A.S., B.S., Keystone College

Matthew T. Pivirotto (2001)
Head Men's Soccer Coach, Athletics (2001)
B.A., Lycoming College

Richard A. Pomager (2000)
Director of Public Safety (2000)
B.S., The Pennsylvania State University
M.A., Sam Houston State University

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

Patricia Popeck, R.N., M.S. (1987)
Director of Student Health Services (1987)
B.S., University of Virginia
M.S., The University of Scranton

Dianne M. Posegate (1993)
Assistant Dean/Director, Academic Advising Center, Panuska College (1998)
B.S.N., Alfred University
M.S., University of Rochester

Timothy Pryle (2002)
Senior Development Officer, Institutional Advancement (2002)
B.S., The University of Scranton
M.A., Boston College

Carol A. Radle (1996)
Budget Manager, Treasurer's Office (1998)
B.S., Marywood University
M.B.A., The University of Scranton

Elizabeth Randol (2001)
Director, Women's Center (2001)
B.A., Washington & Lee University
M.A., North Carolina State University
Ph.D., Binghamton University

Magdalene Restuccia (1980), D. et U.*
Interlibrary Loan Coordinator, Library (1999)

Raymond P. Rignanesi (1997)
Senior Network Administrator, Network Resources (1997)
B.S., The Pennsylvania State University

Vincent Rizzo (2002)
Director, Campus School (2002)
B.A., The Pennsylvania State University
M.S., The University of Scranton

Joseph M. Roback (2000)
Director of Admissions (2000)
B.S., Marywood University
M.S., The University of Scranton

Maryjane S. Rooney (1989)
Associate Director, Alumni Relations (1997)
B.S., The University of Scranton

Richard W. Rousseau, S.J. (1979)
Director, University Press (2001)
B.A., M.A., M.A., Boston College
S.T.L., Faculties St. Albert de Louvain
Ph.D., St. Paul's University, Ottawa

Elizabeth A. Rozelle (1989)
Career Development Coordinator, Career Services (1997)
B.A., Bloomsburg State College
M.S., The University of Scranton

Mollie N. Ruffenach (1988)
Manager of Royal Card Office and Business Services, Network Resources (2003)
B.S., M.S., The University of Scranton

Carol A. Ruggiero (1989)
Registered Nurse, Health Services (1998)
B.S., M.S., The University of Scranton

Carolyn Santiso (1989)
Assistant Director, Annual Giving Programs (2002)
B.A., M.A., The University of Scranton

Madonna A. Savage (1985)
Coordinator of Facilities Scheduling and Information Reception, Public Relations (2002)

A. Noreen Schofield (1994)
Assistant to the Dean, CAS (2000)
B.S., Marywood University

Catherine A. Seymour (1992)
Campus Minister, Campus Ministries (2003)
B.S., M.A., The University of Scranton

Lynn M. Sfanos (1997)
Graphic Designer, Public Relations (1997)
B.S., Cornell University
M.S., Indiana State University

Michael R. Simons (1994)
Coordinator, Study Abroad/Global Initiatives, Office of International Programs and Services (2002)
B.S., M.S., The University of Scranton

Donna J. Simpson (1993)
Business Consultant/Manager of Special Projects, Small Business Development Center (1995)
B.S., B.A., Auburn University
M.B.A., Wilkes University

Sandra Skies-Ludwig (2002)
Communications Coordinator, Public Relations (2002)
B.A., Wilkes University

Ronald J. Skutnick, D. et U.* (1981)
Director, Network Resources (1996)

Edward Slack (2002)
Evening Systems Specialist, Library (2002)
A.S., Penn State University
B.S., The University of Scranton

Lakita T. Smith (2000)
Assistant Director, Residence Life (2000)
B.A., Juniata College
M.Ed., The Pennsylvania State University

Thomas P. Smith (1989)
Licensed Psychologist, Counseling Center (1989)
B.A., Bloomsburg State College
M.A., C.A.G.S., Marywood University
Psy.D., Philadelphia College of Osteopathic Medicine

Kevin F. Southard (1999)
Sports Information Director/Assistant Athletic Director, Athletics (2002)
B.A., The Pennsylvania State University
M.A., The Ohio State University

Sharon P. Sporer (1987)
Assistant to the President (2000)
A.S., The University of Scranton

Anne Marie Stamford (1986)
Assistant to the Provost (1998)
B.S., M.S., The University of Scranton

Kathleen A. Statsman (1998)
Director, Annual Giving Programs (1998)
B.A., The Pennsylvania State University

Courtney Stein (2003)
Director of the Center for Health, Education and Wellness (2003)
B.A., McNeese State University
M.Ed., Louisiana State University

James M. Striefsky (1997)
Systems Analyst, Royal Technology Group (1998)
B.S., Quinnipiac Collage

Bonnie Strohl (1985)
Associate Director of the Library (2003)
B.A., University of Miami
M.S., Shippensburg State College
M.S., The University of Scranton
M.L.S., Simmons College

John J. Tabor, D. et U.* (1977)
Project/Support Team Leader, Systems and Software Resources (1996)
B.S., The University of Scranton

Bonnie L. Thomas-Sharksnas (2001)
Research Analyst, Assessment and Institutional Research Office (2001)
B.S., The University of Scranton
M.A., Ph.D., Marywood University

Terrence Toland, S.J. (2000)
Director, Center for Mission Reflection (2000)
M.A., Loyola University of Chicago
Ph.L., West Baden College
S.T.L., Woodstock College
S.T.D., Gregorian University

Dennis P. Toomey (2000)
Technical Director of Theatre, English (2000)
B.A., Marywood University

Karyn V. Townsend (1987)
Lab Supervisor, Biology (1991)
B.S., Michigan State University
M.S., State University of New York at Albany

Marie A. Trovato (1986)
Director of Special Events, Public Relations (1997)
B.A., Shippensburg University
M.S., The University of Scranton

Diana Moore Trygar, D. et U.* (1983)
Assistant Director, Environmental Health and Safety, Public Safety (1993)
B.S., M.S., The University of Scranton

Richard Trygar (1984)
Chemistry Laboratory Supervisor (1991)
B.S., M.S., The University of Scranton

Georgios Tsoktouridis (2000)
Post-doctoral Research Assistant, Institute of Molecular Biology and Medicine (2000)
B.S., Ph.D., University of London

Elaine M. Tweedy (1987)
Director, Small Business Development Center (1989)
B.S., Marywood University
M.S., The University of Scranton

Paul A. Tweedy (1988)
Director of Administration, Center for Public Initiatives (2003)
B.A., M.A., George Washington University

Stacey R. Urgento (1999)
Assistant Director, Admissions (2001)
B.S., M.S., The University of Scranton

Patricia Vaccaro (1987)
Director of Collegiate Volunteers, Student Affairs (1987)
B.A., Marywood University
M.S., The University of Scranton

Jennifer J. Valtos (2001)
Area Coordinator, Residence Life (2001)
B.A., Albright College
M.S., The University of Scranton

Barbara R. Wagner (1992)
Director of Clinical Education, Physical Therapy (2003)
B.S., University at Buffalo
M.H.A., The University of Scranton

Mary Ann Wagner (2000)
Director of Educational Programs/Research Scientist, Institute of Molecular Biology and Medicine (2001)
B.A., Lycoming College
Ph.D., Hahnemann University

Edward A. Wahesh (2001)
Area Coordinator, Residence Life (2001)
B.A., Fordham University

Richard A. Walsh (1998)
Instructor/Trainer, Center for Continuing Education (1998)
B.A., Marywood University

Kimberly A. Wentland (1999)
Academic Advisor, CAS Advising Center (1999)
B.S., M.S., The University of Scranton

Joseph K. Wetherell (1995)
Associate Director of Admissions (1999)
B.S., University of Vermont
M.S., Florida Institute of Technology

John C. White (1990)
Drug and Alcohol Education/Abuse Counselor, Counseling Center (1990)
A.A., Luzerne Community College
B.S., Bloomsburg University
M.S.W., Marywood University

Judson L. White (1996)
Systems Administrator, Systems and Software Resources (2000)
A.A., Keystone College

Mirtha M. Wilczynski, D. et U.* (1971)
Assistant Director of Financial Aid (1979)

John T. Williams (2001)
Instructor, Center for Continuing Education (2001)
B.A., Bloomsburg University

Leanne E. Williams
Research Technician, Institute for Molecular Biology and Medicine (1999)
B.S., The University of Scranton

David G. Wilson, AIA (1989)
Staff Architect and Quality Control Officer, Physical Plant (1989)
B.A., University of Cincinnati

Richard J. Winn, D. et U.* (1973)
Assistant Plant Director/Student Housing, Physical Plant

Janice M. Winslow (1986)
Director, Intramurals/Recreation (1996)
B.A., M.S., The University of Scranton

Constance A. Wisdo (1988)
Director, Royal Technology Group (2002)
B.S., B.S., King's College
M.S., The University of Scranton

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Valarie J. Wolff (2000)
University Editor/Web Content Manager, Public Relations (2000)
Sherman F. Wooden (1990)
Director of Multicultural Affairs, Student Affairs (2003)
B.A., M.A., Howard University
Vincent J. Yanusauskas (2001)
Computer Training Coordinator/Library Systems Specialist, Library (2001)
Philip E. Yevics (2001)
Academic Advisor, CAS Advising Center (2001)
B.S., The University of Scranton
S.T.B.., University of St. Thomas
M.S., Marynoll Scholl of Theology
Ph.D., Drew University
Charles E. Young (1998)
Instructional Technologist, Office of Instructional Technology (2000)
B.S., The University of Scranton
Keith D. Yurgosky (1994)
Manager, Management Information Systems and Internet Business, Small Business Development Center (2000)
B.S., M.B.A., The University of Scranton
Anitra Yusinski (2002)
Director, Student Activities and Orientation (2002)
B.A., Elizabethtown College
M.A., Bowling Green State University
Gerald C. Zaboski (1988)
Director, Public Relations and Publications (2001)
B.A., M.S., The University of Scranton
Gary S. Zampano, C.P.M., D. et U.* (1974)
Director of Purchasing (1986)
B.S., M.B.A., The University of Scranton
Robert P. Zelno, D. et U.* (1982)
Director of Alumni Relations (1982)
B.S., MS., The University of Scranton
Deborah A. Zielinski (1994)
Nursing Lab Director, Nursing (1998)
B.S., Wilkes University
M.S., State University of New York at Binghamton
Stanley M. Zygmunt (2001)
Manager of Media Relations, Public Relations (2001)
B.S., M.B.A., The University of Scranton

Affiliated Faculty

Diocesan

Rev. Robert J. Barone, S.T.D.
Msgr. David Bohr, S.T.D.
Rev. Joseph R. Kopacz, M.Th., M.A., Ph.D.
Rev. Albert M. Liberatore, S.T.D.
Rev. Glenn E. McCreary, M.A.
Rev. James A. Rafferty, S.T.L.

Health Administration and Human Resources

Vladimir Krcmery, Jr., M.D., Ph.D., FRSH, Dr.Sc.
Helene Kuvikova, Ph.D.
Milan Murgas, Ph.D. Dr.Sc.
Viera Rusnakova, M.D., Ph.D.

Medical Technology

Joseph King, M.D.
Brian D. Spezialetti, M.S., M.T. (ASCP)
Robert Packer Hospital, Sayre, Pa.

Arthur Christiano, M.D.
Jacqueline Opera, MT(ASCP)BB
The Valley Hospital, Ridgewood, N.J.

Accreditations

The Association to Advance Collegiate Schools of Business (AACSB International)
Accreditation Council for Occupational Therapy Education/AOTA
Accrediting Commission on Education for Health Services Administration
American Chemical Society
American Occupational Therapy Association
Commission on Accreditation in Physical Therapy Education/APTA
Commission on Collegiate Nursing Education
Commission on Higher Education of the Middle States Association of Colleges and Schools
Computing Accreditation Commission of ABET
Council for Accreditation of Counseling and Related Educational Programs
Council on Accreditation of Nurse Anesthesia Educational Programs
Council on Rehabilitation Education
Engineering and Technology Inc – ABET
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
National Council for the Accreditation of Teacher Education
National League for Nursing Accrediting Commission
Pennsylvania Department of Education

Memberships

Academy of Criminal Justice Sciences
Accrediting Commission on Education for Health Services Administration
America-Mideast Educational & Training Services, Inc.
American Assembly of Collegiate Schools of Business
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
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Commission on Collegiate Nursing Education
Commission on Higher Education of the Middle States Association of Colleges and Schools
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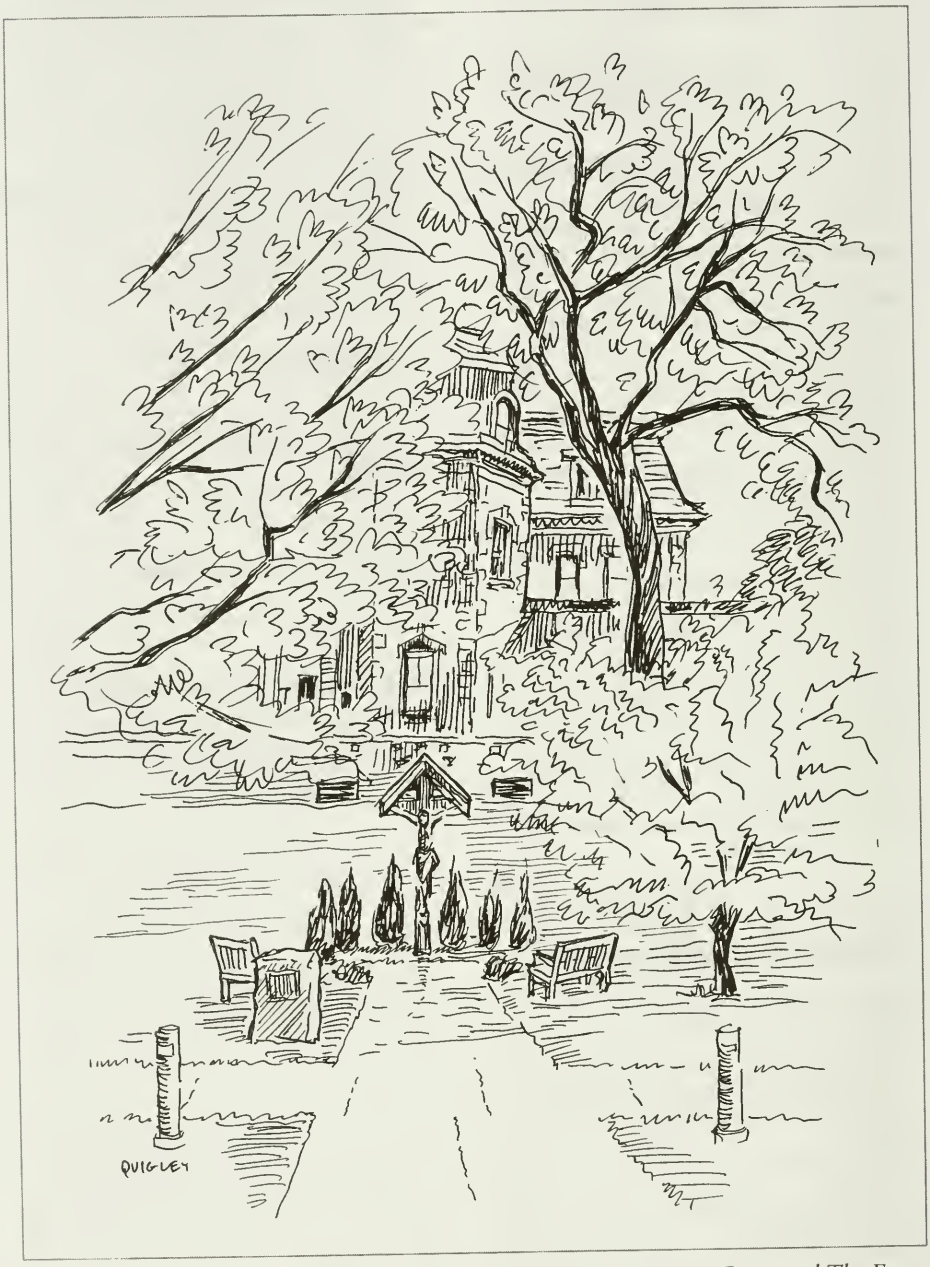

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